



STIC Search Report

EIC 2800

STIC Database Tracking Number: 131883

TO: Hal D Wachsman
Location: JEF 6A01
Art Unit : 2857
Thursday, September 09, 2004

Case Serial Number: 10/659891

From: Irina Speckhard
Location: EIC 2800 JEF 4B59
Phone: (571) 272-2554
irina.speckhard@uspto.gov

Search Notes

Examiner Wachsman,

Please find attached prior-art search results from the patent and non-patent abstract and full-text databases. The results were based on claims and statements of technical problems and solutions. Tagged records might be worth your review as well as the rest of the references provided.

If you need further searching or have questions or comments, please let me know.

Thank you,

Irina Speckhard



SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2004/Aug W5
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*File 2: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.

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File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
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File 99:Wilson Appl. Sci & Tech Abs 1983-2004/Jul
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File 144:Pascal 1973-2004/Aug W5
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File 305:Analytical Abstracts 1980-2004/Sep W1
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*File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.

File 315:ChemEng & Biotec Abs 1970-2004/Aug
(c) 2004 DECHEMA

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200457
(c) 2004 Thomson Derwent

*File 350: For more current information, include File 331 in your search. Enter HELP NEWS 331 for details.

File 347:JAPIO Nov 1976-2004/May(Updated 040903)
(c) 2004 JPO & JAPIO

*File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.

File 344:Chinese Patents Abs Aug 1985-2004/May
(c) 2004 European Patent Office

File 371:French Patents 1961-2002/BOPI 200209
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*File 371: This file is not currently updating. The last update is 200209.

Set	Items	Description
S1	3091	(DATA OR DATUM) () (STORAG? OR STORE?? OR STORING) () (MANAG? - OR MEDIA OR MEDIUM)
S2	932024	(DATA OR DATUM) () (STORAG? OR STORE?? OR STORING) OR DATABA- SE?? OR DATA()BASE??
S3	932024	S1:S2
S4	103289	(STORAG? OR STORE?? OR STORING OR MEMOR?) (3N) (ANALYS? OR - ANALYZ? OR MANAG?)
S5	33	(STORAG? OR STORE?? OR STORING? OR MEMOR?) (3N) (INVENTORY??? OR INVENTORIES OR AVAILABIL? OR AVAILABL?) (3N) RISK???
S6	7534	(TRADEOFF OR TRADE()OFF) (3N) (MONITOR? OR MEASUR? OR TEST? - OR CHECK? OR EXAMIN? OR ANALYS? OR ANALYZ? OR VERIF? OR IDENT- IF? OR DETECT? OR SENSE? OR SENSING? OR INSPECT? OR ESTIMAT? - OR QUANTIF? OR QUANTITAT? OR CALCULAT?)
S7	1431	(STORAG? OR STORE?? OR STORING? OR MEMOR? OR RISK???) (3N) (- TRADEOFF OR TRADE()OFF)
S8	8816	S5:S7
S9	78	POOLED(1N) (STORAG? OR STORE?? OR STORING OR MEMOR?)
S10	12	(STORAG? OR STORE?? OR STORING OR MEMOR?) () DEMAND? () (DATA - OR DATUM)
S11	49	(STORAG? OR STORE?? OR STORING OR MEMOR?) (1W) DEMAND? (1W) (D- ATA OR DATUM)
S12	427	(STORAG? OR STORE?? OR STORING) () DEMAND?
S13	10270	DEMAND? (3N) (CAPACITY OR CAPACITIES OR VARIABILIT? OR VARIA- BLE? OR CHANGEABL?)
S14	10711	S10:S13
S15	275281	(STORAG? OR STORE?? OR STORING OR MEMOR?) (3N) (REQUIREMENT? ? OR SYSTEM? ?)
S16	123031	SAN OR STORAG? () AREA() NETWORK? ?
S17	86	INVENTORY(1W) HAND
S18	8494	COMPUTER? (3N) ACCESSIBL? OR (DISK OR DISKS OR DISC OR DISCS-) () (BASED OR DATA OR DATUM)
S19	21136	S3 AND S4
S20	32	S19 AND S8
S21	0	S20 AND S14
S22	17	S20 AND S15
S23	16	RD (unique items)
S24	15	S20 NOT S22
S25	0	S24 AND S18
S26	13	RD S24 (unique items)
S27	21104	S19 NOT S20
S28	0	S27 AND S9
S29	6168	S27 AND S15
S30	103	S29 AND S16
S31	0	S30 AND S17
S32	0	S30 AND S18
S33	0	S30 AND ((DISK OR DISKS OR DISC OR DISCS) () (BASED OR DATA - OR DATUM OR MEMOR?))
S34	0	S30 AND S5
S35	0	S30 AND S6
S36	0	S30 AND S7
S37	1	S30 AND S13
S38	102	S30 NOT S37
S39	102	S38 AND S16
S40	3025	S16 AND S3
S41	1	S40 AND S8

09/09/2004

10/569,891

S42	3024	S40 NOT S41
S43	4	S42 AND S18
S44	4	RD (unique items)
S45	3020	S42 NOT S43
S46	353	S45 AND S15
S47	3	S46 AND S14
S48	3	RD (unique items)
S49	350	S46 NOT S47
S50	0	S49 AND S9
S51	101	S49 AND S4
S52	0	S51 AND S8
S53	0	S51 AND S17
S54	7	S51 AND (DISK OR DISKS OR DISC OR DISCS) (3N) (BASED OR DATA OR DATUM OR MEMOR?)
S55	7	S54 NOT S48,S41,S43,S37,S20
S56	18	S8 AND S14
S57	18	S56 NOT S48,S41,S43,S37,S20,S54
S58	13	RD (unique items)
S59	0	S58 AND S18
S60	3091	S1 AND S2
S61	378	S60 AND S4
S62	0	S61 AND S5
S63	0	S61 AND S6
S64	0	S61 AND S7
S65	0	S61 AND S13
S66	166	S61 AND S15
S67	6	S66 AND S16
S68	6	S67 NOT S48,S41,S43,S37,S20,S54,S56

DFD. The DFDs are further developed into procedures which identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist as tools, giving both technical and managerial aspects of a task. STRUCTURED ANALYSIS, STRUCTURED DESIGN, LOGISTIC SUPPORT ANALYSIS, LSA, DATA FLOW DIAGRAMS, DFDS, PROCESSES, DATA FLOWS, **DATA STORES**, EXTERNAL ENTITIES, PROCEDURES, VENTURE EVALUATION REVIEW TECHNIQUE, VERT, PROCESS FLOWS, NEW SYSTEM/EQUIPMENT IMPACT, OVERALL SYSTEM DEVELOPMENT PROCESS, STRUCTURED SYSTEMS ANALYSIS FUNDAMENTALS, IMPACT OF FIELDING A NEW SYSTEM ON EXISTING SYSTEMS.

23/3,AB/3 (Item 3 from file: 6)
DIALOG(R)File 6:NTIS
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1685533 NTIS Accession Number: AD-A255 472/3
Structured Analysis/Design, LSA Task 303, Evaluation of Alternatives and **Trade-Off Analysis**: Subtask 303.2.3 System Trade-Offs
(Final rept)
American Power Jet Co., Ridgefield, NJ.
Corp. Source Codes: 001606000; 025950
Report No.: APJ-966-244
Apr 90 93p
Languages: English
Journal Announcement: GRAI9302
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A05/MF A01
This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams (DFDs) for LSA Subtask 303.2.3, System Trade-Offs, and the corresponding descriptions of the processes; data flows, **data stores**, and external entities identified on each DFD. The DFDs are further developed into procedures which identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist as tools, giving both technical and managerial aspects of a task. STRUCTURED ANALYSIS, STRUCTURED DESIGN, LOGISTIC SUPPORT ANALYSIS, LSA, DATA FLOW DIAGRAMS, DFDS, PROCESSES, DATA FLOWS, **DATA STORES**, EXTERNAL ENTITIES, PROCEDURES, VENTURE EVALUATION REVIEW TECHNIQUE, VERT, PROCESS FLOWS, OVERALL SYSTEMS DEVELOPMENT PROCESS, STRUCTURED SYSTEMS ANALYSIS FUNDAMENTALS, AND SYSTEM TRADE-OFFS.

23/3,AB/4 (Item 4 from file: 6)
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1685530 NTIS Accession Number: AD-A255 469/9
Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks 303, Evaluation of Alternative and **Trade-Off Analysis**, LSA Subtask 303.2.9, Comparative Evaluations
(Final rept)
Duclos, R.
American Power Jet Co., Ridgefield, NJ.
Corp. Source Codes: 001606000; 025950
Report No.: APJ-966-250

23/3,AB/1 (Item 1 from file: 6)
DIALOG(R)File 6:NTIS
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1685606 NTIS Accession Number: AD-A255 546/4

Structured Analysis/Design - LSA Tank 301, Functional Requirements
Identification, Subtask 301.2.3, Functional Requirements Risk Analysis
(Final rept)

Duclos, R. ; Shepherd, N.
American Power Jet Co., Ridgefield, NJ.
Corp. Source Codes: 001606000; 025950
Report No.: APJ-966-242
Jan 90 65p
Languages: English
Journal Announcement: GRAI9302

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NTIS Prices: PC A04/MF A01

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams, (DFDs) for LSA Subtask 301.2.3, 'Functional Requirements Risk Analysis', and the corresponding descriptions of the processes, data flows, **data stores**, and external entities identified on each DFD. The DFDs are further developed into procedures which identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist as tools, giving both technical and managerial aspects of a task. STRUCTURED ANALYSIS, STRUCTURED DESIGN, LOGISTIC SUPPORT ANALYSIS, LSA, DATA FLOW DIAGRAMS, DFDS, PROCESSES, DATA FLOWS, **DATA STORES**, EXTERNAL ENTITIES.

23/3,AB/2 (Item 2 from file: 6)
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1685552 NTIS Accession Number: AD-A255 491/3

Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks, LSA Subtask 402.2.1 'Impact of Fielding a New System on Existing Systems

(Final rept)
Duclos, R.
American Power Jet Co., Ridgefield, NJ.
Corp. Source Codes: 001606000; 025950
Report No.: APJ-966-256
Jan 91 137p
Languages: English
Journal Announcement: GRAI9302

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NTIS Prices: PC A07/MF A02

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams (DFDs) for LSA Subtask 402.2.1, Impact of Fielding a New System on Existing Systems, and the corresponding descriptions of the processes, data flows, **data stores**, and external entities identified on each

Jan 91 65p

Languages: English

Journal Announcement: GRAI9302

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NTIS Prices: PC A04/MF A01

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams (DFDs) for the LSA Subtask 303.2.9, Comparative Evaluations, with the corresponding descriptions of the processes, data flows, **data stores**, and external entities identified on each DFD. The DFDs are further developed into procedures which identifies -how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT). Batch Input files are also provided to assist, as tools, giving both technical and managerial aspects of a task.

23/3,AB/5 (Item 5 from file: 6)

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1685529 NTIS Accession Number: AD-A255 468/1

Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Task 303 Evaluation of Alternatives and **Trade-Off Analysis**, LSA Subtask 303.2.2, Trade-Off between Support System Alternatives and System/Equipment Alternatives

(Final rept)

Duclos, R.

American Power Jet Co., Ridgefield, NJ.

Corp. Source Codes: 001606000; 025950

Report No.: APJ-966-239

Jan 91 118p

Languages: English

Journal Announcement: GRAI9302

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NTIS Prices: PC A06/MF A02

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Task. Included are the Data Flow Diagrams (DFDS) for the LSA Subtask 303.2.2, Trade-Off Between Support System Alternatives and System/Equipment Alternatives, and the corresponding descriptions of the processes, data flows, **data stores**, and external entities identified on each DFD. The DFDs are further developed into procedures which identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist as tools, giving both technical and managerial aspects of a task.

23/3,AB/6 (Item 6 from file: 6)

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1682650 NTIS Accession Number: AD-A255 049/9

Structured Analysis/Design - LSA Task 303, Evaluation of Alternatives and **Trade-Off Analysis**, Subtask 303.2.8, **Testing**

Concept **Trade-Off Analysis**

(Final rept)

Duclos, R. ; Shepherd, N.

American Power Jet Co., Ridgefield, NJ.

Corp. Source Codes: 001606000; 025950

Report No.: APJ-966-248

Jan 91 112p

Languages: English

Journal Announcement: GRAI9301

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NTIS Prices: PC A06/MF A02

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams (DFDs) for LSA Sub-task 303.2.8, **Testing Concept Trade-Off Analysis**, with the corresponding descriptions of the processes, data flows, **data stores**, and external entities identified on each DFD. The DFDs are further developed into procedures which identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist, as tools, giving both technical and managerial aspects of a task. Structures analysis, Structured design, Logistic support analysis, LSA, Data flow diagrams, DFDS, Processes data flows **data stores** external entities, Procedures, Venture evaluation review technique, VERT, Process flows, Structured systems analysis fundamentals, Overall systems development process, **Testing concept trade-off analysis**.

23/3,AB/7 (Item 7 from file: 6)

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1462415 NTIS Accession Number: AD-A210 804/1

Occupational Research Data Bank: A Key to MPTS (Manpower, Personnel, Training, and Safety) Analysis Support

(Interim rept. Dec 87-Dec 88)

Longmire, K. M. ; Short, L. O.

Air Force Human Resources Lab., Brooks AFB, TX.

Corp. Source Codes: 026411000; 404415

Report No.: AFHRL-TP-88-71

Jul 89 12p

Languages: English

Journal Announcement: GRAI8923

Presented at the Conference of the Military Testing Association (30th) 27 Nov-2 Dec 88, Arlington, VA.

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NTIS Prices: PC A03/MF A01

Manpower authorization shortages, increasing skill requirements, and Congressional/DoD concerns for weapon system (WS) life-cycle support costs mandate that manpower, personnel, training. and safety (MPTS) issues become integral parts of new WS planning, conceptual development, and design trade-off decisions. The Air Force Human Resources Laboratory (AFHRL) is currently developing technologies, tools and **data bases** to help address this need. One of the most important of the **data bases**

citation 14:017119)

23/3,AB/9 (Item 9 from file: 6)
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1260069 NTIS Accession Number: AD-A170 291/9

Value Cell Encoding Strategies

(Technical rept)

Sullins, J.

Rochester Univ., NY. Dept. of Computer Science.

Corp. Source Codes: 010090065; 410386

Report No.: TR-165

Aug 85 26p

Languages: English

Journal Announcement: GRAI8623

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NTIS Prices: PC A03/MF A01

In many application areas, particularly in the biological sciences, there is the need to store several values of variables. Given a finite precision, one can store these values in N sub k explicit cells, referred to as value cells, in a k -dimensional space of grain N . Typically, the number of values that must be stored is a very small fraction of the total number specified by the grain of the multidimensional space. This leads to data structuring that reduces the number of explicit cells required for a given level of accuracy. One idea is coarse coding, intersection of larger, coarser grained cells. Coarse coding has been shown to reduce the number of cells required by a factor of $1/D$ sub $k-1$ where D is the diameter of the coarse cell in units of fine grained cells. This intuitively appealing idea in fact involves many subtle tradeoffs that are the focus of this paper. Coarse coding is shown to be independent of the isotropy of the cells and superior to simply reducing the grain of the representation space. Loss of information due to the possibility of some fine grained cells sharing some of the same coarse cells and due to uncertainty in the input and translations of data is examined. (Author)

23/3,AB/10 (Item 10 from file: 6)
DIALOG(R)File 6:NTIS
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1121777 NTIS Accession Number: AD-A142 583/4

Early Training Estimation System (ETES). Final Report. Appendix H. User's Guide. Media Selection Program

(Final rept)

O'Brien, L. H. ; Boylston, D. ; White, R.

Dynamics Research Corp., Wilmington, MA.

Corp. Source Codes: 062809000; 388902

Sponsor: Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

Report No.: ARI-RN-84-81

Jun 84 192p

Languages: English

Journal Announcement: GRAI8420

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email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A09/MF A01

This report describes the research and development activities conducted under the Early Training Estimation System (ETES) development project. The Early Training Estimation System (ETES) is an integrated set of procedures and automated tools for estimating training requirements during the earliest phases of the weapon system acquisition process. The ETES has three major components; a System Description Technology (SDT), Early Training Estimation Aids and Procedures (TEAP), and Evaluative Technology. The SDT is a **data base management system** for **storing** and tracking task and training-related data. The data in the SDT is used in the TEAP to estimate training requirements for a new system. These training requirements include estimates of task requirements, course requirements, and resource requirements as well as estimates of training costs, training efficiency, and training effectiveness. In the Evaluative Technology, the integrated impacts of training requirements are assessed, training alternatives are evaluated, **tradeoff** and sensitivity **analyses** of key parameters are conducted, and the relationships between ETES outputs and key Army acquisition documents and processes are specified. This report provides an overview of the components of ETES, describes the research conducted under each of the five ETES study tasks; and outlines future directions for improving ETES. This report contains Appendix H, User's Guide, Media Selection Program: ARI Research Note 84-81.

23/3,AB/11 (Item 11 from file: 6)

DIALOG(R)File 6:NTIS

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1121738 NTIS Accession Number: AD-A142 543/8

Early Training Estimation System (ETES). Appendix I. User's Guide: Automated Resource and Cost Estimation Technique
(Final rept)

O'Brien, L. H. ; Boylston, D. ; Kistler, R.

Dynamics Research Corp., Wilmington, MA.

Corp. Source Codes: 062809000; 388902

Sponsor: Army Research Inst. for the Behavioral and Social Sciences, Alexandria, VA.

Report No.: ARI-RN-84-82

Jun 43 67p

Languages: English

Journal Announcement: GRAI8420

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NTIS Prices: PC A04/MF A01

This report describes the research and development activities conducted under the Early Training Estimation System (ETES) development project. The Early Training Estimation System (ETES) is an integrated set of procedures and automated tools for estimating training requirements during the earliest phases of the weapon system acquisition process. The ETES has three major components; a System Description Technology (SDT), Early Training Estimation Aids and Procedures (TEAP), and Evaluative Technology. The SDT is a **data base management system** for **storing** and tracking task and training-related data. The data in the SDT is used in the TEAP to estimate training requirements for a new system. These training requirements include estimates of task requirements, and course requirements, and resource requirements as well as estimates of

training costs, training efficiency, and training effectiveness. In the Evaluative Technology, the integrated impacts of training requirements are assessed, training alternatives are evaluated, **tradeoff** and sensitivity **analyses** of key parameters are conducted, and the relationships between ETES outputs and key Army acquisition documents and processes are specified. The report provides an overview of the components of ETES, describes the research conducted under each of the five ETES study tasks; and outlines future directions for improving ETES.

23/3,AB/12 (Item 12 from file: 6)
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0722045 NTIS Accession Number: AD-904 496/7/XAB

Concept Definition of the Navy Environmental Protection Data
Base (NEPDB) System

(Final rept. 26 Apr-15 Aug 72)

Berg, D. N.

Stanford Research Inst Menlo Park Calif

Corp. Source Codes: 332500

Report No.: NCEL-CR-73.004

15 Aug 72 353p

Journal Announcement: GRAI7824

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NTIS Prices: PC A16/MF A01

This report analyzes user requirements for environmental data and develops characterizations of **data base** components. Preliminary concepts for **data base** organization and indexing are discussed, and a number of required data files are identified. The functions that the system must perform are discussed and shown in flow charts and more detailed signal flow diagrams. Major alternative system operations discussed are: centralized/decentralized operations, manual/automatic operations, and index and **storage** media. **Trade-off analyses** of these alternative are made and evaluated according to specific criteria. The results of these evaluations are then used to synthesize a set of final NEPDB system options. These options are discussed and the preferred option is recommended. A phasing of the growth of the NEPDB system is discussed with subsequent recommendations.

23/3,AB/13 (Item 13 from file: 6)
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0597865 NTIS Accession Number: AD-A033 486/2/XAB

Considerations in the Design of Software for Sparse Gaussian Elimination
(Research rept)

Eisenstat, S. C. ; Schutz, M. H. ; Sherman, A. H.

Yale Univ New Haven Conn Dept of Computer Science

Corp. Source Codes: 407051

Report No.: RR-55

1975 11p

Journal Announcement: GRAI7705

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Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

This paper discusses the design of sparse Gaussian elimination codes, in particular the effects of certain flexibility and cost constraints on the design, and possible tradeoffs among the design goals of flexibility, speed, and small size.

23/3,AB/14 (Item 14 from file: 6)

DIALOG(R)File 6:NTIS

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0570847 NTIS Accession Number: AD-B010 430/7/XAB

Air Force Global Weather Central System Architecture Study. Final System/Subsystem Summary Report. Volume 4. Systems Analysis and Trade Studies

(Final rept. 1 Feb 75-1 Mar 76)

System Development Corp Santa Monica Calif

Corp. Source Codes: 339900

Report No.: SDC-TM-(L)-5613/004/01; SAMSO-TR-76-87

1 Mar 76 380p

Journal Announcement: GRAI7622

See also Volume 5, AD-B010 431L.

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NTIS Prices: PC A17/MF A01

Partial contents: **Data storage**, Data transfer and routing, Computation and software, Terminal interface, Consoles/Data input and display, Personnel, Management, Facilities, and Costing.

23/3,AB/15 (Item 15 from file: 6)

DIALOG(R)File 6:NTIS

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0240889 NTIS Accession Number: AD-711 827/XAB

The Formulation and Analysis of the Theory for Determining Required Receiver Memory for Signal Detection

(Technical rept)

Baxa, E. G.

Duke Univ Durham N C Adaptive Signal Detection Lab

Corp. Source Codes: 405708

Report No.: TR-6

Mar 70 214p

Document Type: Thesis

Journal Announcement: USGRDR7022

Doctoral thesis.

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NTIS Prices: PC A10/MF A01

The purpose of the report is to develop and evaluate a theory of memory applicable in statistical detection theory. An optimum finite memory approach is postulated and the resulting signal detector designs are evaluated for a class of problems including Signal-Known-Exactly (SKE), Signal-Known-Except Amplitude (SKEA), and M-ary Signaling. The finite memory detector design for a class of problems involving a transient signal

is considered also. The transient signal is described in terms of one of a finite number of possible time varying waveforms which recur synchronously. The fixed-ended finite memory design for the non-sequential SKE problem is presented. This design involves problems where the observation length is specified a priori and a decision output is rendered only at the end of the observation. Also an open-ended finite memory design is presented which results from assuming a priori neither the eventual length of observation nor the maximum length of observation. Using the Receiver Operating Characteristic (ROC) the open-ended finite memory design is evaluated and compared with the optimum infinite memory design. Results show that the infinite memory detector performance can be obtained by a very small finite memory detector involving seven states. The **trade-off** between **detector memory** and time is also apparent. (Author)

23/3,AB/16. (Item 1 from file: 144)
DIALOG(R) File 144:Pascal
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13160693 PASCAL No.: 97-0422162

An improved dynamically allocated data structure scheme for power system problems

YEHA M; CHEDID R; JABER Z; ILIC M; ZOBAN A

American University of Beirut, 850 Third Ave., New York, NY, 10022,
United States; Massachusetts Institute of Technology, 77 Mass. Ave.,
Cambridge, MA, 02139, United States

Journal: International journal of modelling & simulation, 1997, 17 (2)
61-65

Language: English

This paper proposes two new dynamically allocated data structures for large and sparse matrices occurring in electric power system problems. The proposed data structures have the features of optimizing **memory requirement** and fast accessing of data. Their advantages as compared to classical methods will be discussed, and a **trade-off analysis** between **memory requirement** and accessing time will be performed. It will be shown that improvement in both **memory requirement** and processing time can be achieved.

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26/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

6135192 INSPEC Abstract Number: C1999-02-4250-008
Title: Tight bounds for 2-dimensional indexing schemes
Author(s): Koutsoupias, E.; Taylor, D.S.
Author Affiliation: Dept. of Civil Eng., California Univ., Los Angeles, CA, USA
Conference Title: Proceedings of the Seventeenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems. PODS 1998 p.52-8
Publisher: ACM, New York, NY, USA
Publication Date: 1998 Country of Publication: USA ix+286 pp.
ISBN: 0 89791 996 3 Material Identity Number: XX-1998-02148
U.S. Copyright Clearance Center Code: 0 89791 996 3/98/6...\$5.00
Conference Title: Proceedings of PODS '98 Seventeenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Data Systems (PODS)
Conference Sponsor: ACM
Conference Date: 1-3 June 1998 Conference Location: Seattle, WA, USA
Language: English
Abstract: We study the **trade-off** between **storage** redundancy and access overhead for range queries, using the framework of Hellerstein et al. (1997). We show that the ~~Fibonacci-workload~~ of size n , which is the regular 2-dimensional grid rotated by the golden ratio, does not admit an indexing scheme with access overhead less than the block size B (the worst possible access overhead), even for storage redundancy as high as $c \log n$, for some constant c . We also show that this bound is tight (up to a constant factor) by providing an indexing scheme with storage redundancy $\theta(\log n)$ and constant access overhead, for any 2-dimensional workload. We extend the lower bound to random point sets and show that if the maximum storage redundancy is less than $c \log \log n$, the access overhead is B . Finally, we explore the relation between indexability and fractal (Hausdorff) dimension of point sets.
Subfile: C
Copyright 1999, IEE

26/3,AB/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC
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4999582 INSPEC Abstract Number: C9509-6160D-006
Title: Applying update streams in a soft real-time **database** system
Author(s): Adelberg, B.; Garcia-Molina, H.; Kao, B.
Author Affiliation: Dept. of Comput. Sci., Stanford Univ., CA, USA
Journal: SIGMOD Record Conference Title: SIGMOD Rec. (USA) vol.24, no.2 p.245-56
Publication Date: June 1995 Country of Publication: USA
CODEN: SRECD8 ISSN: 0163-5808
Conference Title: 1995 ACM SIGMOD International Conference on Management of Data
Conference Sponsor: ACM
Conference Date: 22-25 May 1995 Conference Location: San Jose, CA, USA
Language: English
Abstract: Many papers have examined how to efficiently export a materialized view but to the authors' knowledge none have studied how to efficiently import one. To import a view, i.e., to install a stream of updates, a real-time **database** system must process new updates in a timely fashion to keep the **database** "fresh", but at the same time must process transactions and ensure they meet their time constraints. The

authors discuss the various properties of updates and views (including staleness) that affect this **tradeoff**. They also **examine**, through simulation, four algorithms for scheduling transactions and installing updates in a soft real-time **database**.

Subfile: C
Copyright 1995, IEE

26/3,AB/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

03647664 INSPEC Abstract Number: C90040134
Title: Design of statistical information media: time performances and storage constraints
Author(s): Barcaroli, G.; Di Battista, G.; Fortunato, E.; Leporelli, C.
Author Affiliation: Istituto Centrale di Stat., Rome, Italy
Conference Title: Statistical and Scientific Database Management. Fourth International Working Conference SSDBM Proceedings p.93-104
Editor(s): Rafanelli, M.; Klensin, J.C.; Svensson, P.
Publisher: Springer-Verlag, Berlin, West Germany
Publication Date: 1989 Country of Publication: West Germany ix+454 pp.

ISBN: 3 540 50575 x
Conference Date: 27-30 June 1988 Conference Location: Rome, Italy
Language: English
Abstract: A statistical **database** can be seen as a set of tables and a set of derivation functions; each function maps a set of tables into a new one. In order to optimize the time performance of the system it would be convenient to store the derived tables in secondary **memory**. However, a **trade-off** between **storage** resources and time performance arises: when the storage space is constrained, it is necessary to choose which derived tables have to be stored and which of them have to be computed online. In this paper, such a trade-off problem is investigated. The authors formulate it as an integer linear program, both for monadic and for polyadic derivation functions. In the first case they obtain a simple plant location problem with a linear knapsack constraint; in the second case the obtained program is equivalent to a simple plant location problem with a submodular knapsack constraint. Moreover the authors show that the problem is NP-complete and propose an efficient heuristic approach to solve it.

Subfile: C

26/3,AB/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

03638995 INSPEC Abstract Number: C90040121
Title: On adaptive sampling
Author(s): Flajolet, P.
Author Affiliation: INRIA Rocquencourt, Le Chesnay, France
Journal: Computing vol.43, no.4 p.391-400
Publication Date: 1990 Country of Publication: Austria
CODEN: CMPTA2 ISSN: 0010-485X
Language: English
Abstract: **Analyzes the storage/accuracy trade-off** of an adaptive sampling algorithm due to Wegman that makes it possible to evaluate probabilistically the number of distinct elements in a large file stored on disk.

Subfile: C

26/3,AB/5 (Item 5 from file: 2)
DIALOG(R)File 2:INSPEC
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03531702 INSPEC Abstract Number: C90006599

Title: Adaptive sampling

Author(s): Flajolet, P.

Issued by: Inst. Nat. Recherche Inf. Autom., Le Chesnay, France

Publication Date: April 1989 Country of Publication: France 11 pp.

Report Number: 1025

Language: English

Abstract: A problem that naturally arises in query optimization of **data base** systems is to estimate the number of distinct elements (also called cardinality) of a large collection of data with unpredictable replications. The author **analyzes** the **storage** /accuracy **trade-off** of an adaptive sampling algorithm due to M. Wegman that makes it possible to evaluate probabilistically the cardinality in a large file stored on disk.

Subfile: C

26/3,AB/6 (Item 1 from file: 6)
DIALOG(R)File 6:NTIS
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1685396 NTIS Accession Number: AD-A255 328/7

Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Task 303, Evaluation of Alternatives and **Trade-Off Analysis**, LSA Subtask 303.2.6, Training Trade-Offs

(Final rept)

Duclos, R. ; Shepherd, N.

American Power Jet Co., Ridgefield, NJ.

Corp. Source Codes: 001606000; 025950

Report No.: APJ-966-221

Jan 90 112p

Languages: English

Journal Announcement: GRAI9302

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NTIS Prices: PC A06/MF A02

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams (DFDs) for LSA Subtask 303.2.6, Training Trade-Offs, and the corresponding descriptions of the processes, data flows, **data stores**, and external entities identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist as tools, giving both technical and managerial aspects of a task. Structured Analysis, Structured Design, Logistic Support Analysis, LSA, Data Flow Diagrams, DFDs, Processes, Data Flows, **Data Stores**, External Entities

26/3,AB/7 (Item 2 from file: 6)
DIALOG(R)File 6:NTIS

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0915563 NTIS Accession Number: AD-A103 097/2/XAB

Research in Functionally Distributed Computer Systems Development. Volume XII. Design Considerations in Distributed **Data Base** Management Systems

(Interim rept)

Fisher, P. S. ; Maryanski, F. J. ; Wallentine, V. E.
Kansas State Univ., Manhattan. Dept. of Computer Science.
Corp. Source Codes: 011005029; 391123

Report No.: CS-77-8

Apr 77 24p

Languages: English

Journal Announcement: GRAI8125

See also Volume 15, AD-A103 098.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

With the advent of **Data Base** Management Systems (DBMS) and associated facilities (data dictionaries, query languages, report writers, etc.), the task of data organization, **management**, and **storage** has been given to a select group of specialists. These specialists (the **Data Base** Administrators (DBA) provide the necessary control, logging, and access information and software to the program. Such activity relieves the programmers of this overhead function allowing them to concentrate on the necessary manipulations. This paper focuses on some alternatives with respect to a DBMS in terms of a centralized versus decentralized environment. The first section deals with the concepts and tradeoffs involved in considering the two environments. The second section then deals with problems which are encountered in a distributed **data base** management system. These problems include deadlock, rollback and recovery, data conversion, redundancy, and communication and operating system requirements for effective distribution.

26/3,AB/8 (Item 3 from file: 6)

DIALOG(R)File 6:NTIS

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0599155 NTIS Accession Number: PB-261 823/9/XAB

A Marketing Approach to Carpool Demand **Analysis**. Technical Memorandum III. **Tradeoff** Model and Policy Simulation

(Conservation paper)

Peat, Marwick, Mitchell and Co., Washington, D.C.

Corp. Source Codes: 406207;

Sponsor: Market Facts, Inc., Chicago, Ill.; Federal Energy Administration, Washington, D.C. Office of Transportation Programs.

Report No.: FEA/D-76/165; FEA/D-CP-54D

Jul 76 53p

Journal Announcement: GRAI7705

See also PB-261 824. Prepared in cooperation with Market Facts, Inc., Chicago, Ill.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A04/MF A01

The memorandum discusses the theoretical basis of the trade-off model and

Author: Lawrence, Steve; Back, Andrew D.; Tsoi, Ah Chung; Giles, C. Lee
Corporate Source: NEC Research Inst, Princeton, NJ, USA
Conference Title: Proceedings of the 1997 7th IEEE Workshop on Neural
Networks for Signal Processing, NNSP'97
Conference Location: Amelia Island, FL, USA Conference Date:
19970924-19970926
E.I. Conference No.: 47302
Source: Neural Networks for Signal Processing - Proceedings of the IEEE
Workshop 1997. IEEE, Piscataway, NJ, USA. p 256-265
Publication Year: 1997
CODEN: 85QHAU
Language: English

Abstract: The Gamma multilayer perceptron (MLP) is a MLP with the
synaptic weights replaced by gamma filters and associated gain terms
throughout all layers and it is applied to speech phoneme recognition
problem. The Gamma MLP uses a large range of temporal resolutions for this
kind of problem. Further motivation for the Gamma MLP is related to the
'curse of dimensionality' and the ability of the Gamma MLP to **trade
off** temporal resolution for **memory** depth. The memory depth of
the network increases without increasing its dimensionality. 12 Refs.

26/3,AB/13 (Item 4 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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03456608

E.I. Monthly No: EIM9207-035407
Title: Adaptive window working set replacement policies.
Author: van Wezenbeek, A. M.; Withagen, W. J.
Corporate Source: Eindhoven Univ of Technology, Eindhoven, Netherlands
Conference Title: Short Notes Euromicro 91
Conference Location: Vienna, Austria Conference Date: 19910902
E.I. Conference No.: 16329
Source: Microprocessing and Microprogramming v 34 n 1-5 Feb 1992. p 53-56
Publication Year: 1992
CODEN: MMICDT ISSN: 0165-6074
Language: English
Abstract: The adaptive window policy AWP gives an explicit relation for
memory management based upon both program behavior and
trade-off between main **memory** and **disk memory**. In this
paper a new policy LWS is derived which also incorporates both terms using
an implicit relation. A **memory management** simulation program
(SMMU) has been written to compare these policies, results show that LWS is
able to obtain for the used input at least similar performance, but also
that it is more sensitive to the default window size it is invoked with.
(Author abstract) 5 Refs.

37/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
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7599533

Title: Storage service providers: the answer to SME storage?

Author(s): Rowe, G.

Journal: What to Buy for Business no.262 p.50-9

Publisher: Reed Business Publishing Group,

Publication Date: Jan. 2003 Country of Publication: UK

CODEN: WBUBDH ISSN: 0265-296X

SICI: 0265-296X(200301)262L:50:SSPA;1-#

Material Identity Number: D577-2002-011

Language: English

Abstract: IT is a generic business and often a model that develops in one sector will spread across to another. The new kid on the block is the storage service provider (SSP)-an outsourced storage solution designed for businesses without the in-house resources to **manage storage** themselves. The premise that SSPs use to explain the service ~~they~~ bring is that data storage is an increasingly crucial part of business development and strategy, especially given the huge expansion in e-business currently underway. Other factors include the cost of data management. In addition, demand peaks and troughs, and network disruptions caused by back-up routines, have fuelled the need for more effective **storage** facilities and **management**. These expanding **demands** for storage **capacity** suggest not only a need for outsourcing to SSPs, but also creating a scalable, flexible open infrastructure for storage, which can grow cost effectively with the organisation. This ties in with the trend in modern businesses of all sizes to focus resources on core business activities by outsourcing the whole IT function rather than also running complex IT systems.

Subfile: D

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41/3,AB/1 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
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13554854 PASCAL No.: 98-0256411
File caching in video-on-demand servers
Storage and retrieval for image and video **databases VI : San**
Jose CA, 28-30 January 1998
WANG F C; CHANG S H; HUNG C W; CHANG J Y; OYANG Y J; LEE M H
SETHI Ishwar K, ed; JAIN Ramesh C, ed
Department of Computer Science and Information Engineering, National
Taiwan University, Taipei, China; Department of Information Management,
Shih Chien University, Taipei, China
International Society for Optical Engineering, Bellingham WA, United
States.
Storage and retrieval for image and video databases. Conference, 6 (San
Jose CA USA) 1998-01-28
Journal: SPIE proceedings series, 1997, 3312 339-350
Language: English
This paper studies the file caching issue in video-on-demand(VOD)
servers. Because the characteristics of video files are very different from
those of conventional files, different type of caching algorithms must be
developed. For VOD servers, the goal is to optimize resource allocation and
tradeoff between **memory** and disk bandwidth. This paper first
proves that resource allocation and **tradeoff** between **memory** and
disk bandwidth is an NP-complete problem. Then, a heuristic algorithm,
called the generalized relay mechanism, is introduced and a
simulation-based optimization procedure is conducted to evaluate the
effects of applying the generalized relay mechanism.

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44/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
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7872247

Title: **Disk-based** backup improves performance
Journal: Communications News vol.41, no.5 p.24-5
Publisher: Nelson Publishing,
Publication Date: May 2003 Country of Publication: USA
CODEN: CMUNA9 ISSN: 0010-3632
SICI: 0010-3632(200305)41:5L:24:DBBI;1-Y
Material Identity Number: F947-2003-007
Language: English

Abstract: **Data Base** File Tech (DBFT), a Victoria, British Columbia-based **data storage** company specializing in high-security storage of both physical assets and digital information, maintains one of the most secure storage sites in the world. Situated on a veritable monolith floating on the Earth's crust, DBFT's main facility in Victoria tops a geological phenomenon of igneous rock measuring several kilometers in surface dimension and 80 kilometers in depth. DBFT's site literally provides a rock-solid foundation for **data storage**. Maurice Auger, director of operations at DBFT, was recently tasked with reviewing the firm's backup ~~capabilities~~ and recommending upgrades for improved performance required by the ~~growing company~~. Auger and his associates researched **disk-based products** from several companies, which, while fast and scalable, posed integration and management challenges.

Subfile: D
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44/3,AB/2 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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03574714

E.I. Monthly No: EIM9303-014827

Title: Computer support for water quality management in San Diego Bay.

Author: Bale, A. E.; Orlob, G. T.
Corporate Source: Univ of California-Davis, Davis, CA, USA
Conference Title: 1992 National Conference on Water Resources Planning and Management - Water Forum '92
Conference Location: Baltimore, MD, USA Conference Date: 19920802
E.I. Conference No.: 17352
Source: Water Resources Planning and Management: Saving a Threatened Resource - In Search of Solutions, Proceedings of the Water Resources Sessions at Water Forum. Publ by ASCE, New York, NY, USA. p 176-181
Publication Year: 1992
CODEN: 85NAAS ISBN: 0-87262-876-0
Language: English

Abstract: At present, a variety of computer based systems and techniques, including mathematical models, **data bases**, information management schemes, statistical analysis packages, and graphical displays support decision makers in their management of water quality issues. A recently developed concept, particularly suited to a future of readily **accessible** workstations and personal **computers**, defines a computer aided support system (CASS) in which a combination of these systems and techniques comprises an integrated management package. Such a package may be structured so that the end user and each package component

may interact, exchanging data as well as directives. This paper describes the design and application of the San Diego Bay CASS and presents a comparison of management options illustrating its utility. (Author abstract)

44/3,AB/3 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
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13693815 PASCAL No.: 98-0448054
Photosensitive optical materials and devices II : San Jose CA,
27-28 January 1998
ANDREWS Mark P, ed
International Society for Optical Engineering, Bellingham WA, United States.
Photosensitive optical materials and devices. Conference, 2 (San Jose CA USA) 1998-01-27
Journal: SPIE proceedings series, 1998, 3282 V, 128 p., ill., index
Non-paginated pages/foldouts
Language: English Summary Language: English

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44/3,AB/4 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015683780
WPI Acc No: 2003-745969/200370
XRPX Acc No: N03-597652

Stable image generation method in **storage area network**,
involves modifying stable list based on logical storage tree by adding split and quiescent information between root objects and leaf nodes of tree
Patent Assignee: BROMLEY G (BROM-I); COLGROVE J A (COLG-I); CUYKENDALL B T (CUYK-I); HARMER C (HARM-I); KARR R (KARR-I); KISELEV O (KISE-I); LANZATELLA T W (LANZ-I); UMBEHOCKER S M (UMBE-I); UNUECO A (UNUE-I)
Inventor: BROMLEY G; COLGROVE J A; CUYKENDALL B T; HARMER C; KARR R; KISELEV O; LANZATELLA T W; UMBEHOCKER S M; UNUECO A
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
US 20030163476 A1 20030828 US 200287230 A 20020228 200370 B

Priority Applications (No Type Date): US 200287230 A 20020228
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 20030163476 A1 27 G06F-017/00

Abstract (Basic): US 20030163476 A1
Abstract (Basic):

NOVELTY - A stable list is constructed by receiving information about the split and quiescent characteristics from a storage (124). The list is modified as a function of traversing the logical storage tree to root objects by adding information about the characteristics between the root objects and leaf nodes.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) **computer accessible** medium storing stable image generation;

(2) method for generating data structure;

(3) method of identifying quiescent storage objects;

(4) quiescent method of storage objects; and

(5) **data storage** system.

USE - For generating stable images of network based computing systems in **storage area network (SAN)** connected to local area network (LAN), wide area network (WAN) and Internet.

ADVANTAGE - Stable images of storage objects are distributed across the storage in an efficient and timely manner without increase in performance cost due to simultaneous quiescent of multi file systems.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the stable image generation system.

CPU (18)

RAM (120)

ROM (122)

mass storage (124)

remote computer (150)

pp; 27 DwgNo 3/14

48/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
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7881494 INSPEC Abstract Number: C2004-04-6150N-036
Title: Design and implementation of a metadata structure for large-scale shared-disk file system
Author(s): Lee Yong Ju; Kim Gyoungbae; Shin Bumjoo
Journal: Journal of KISS: Computer Systems and Theory vol.30, no.1-2 p.33-49
Publisher: Korea Inf. Sci. Soc.
Publication Date: Jan.-Feb., 2003 Country of Publication: South Korea
CODEN: CKNOF2 ISSN: 1229-683X
SICI: 1229-683X(200301/02)30:1/2L:33:DIMS;1-#
Material Identity Number: 0838-2003-002
Language: Korean

Abstract: Recently, there have been large storage demands for manipulating multimedia data. To solve the tremendous storage demands, one of the major research areas is the SAN (storage area network) that provides local file requests directly from shared-disk storage and also eliminates the server bottlenecks to performance and availability. SAN also improve the network latency and bandwidth through new channel interface like FC (fibre channel). But to manipulate the efficient storage network like SAN, traditional local file system and distributed file system are not adaptable and also are lack of research in terms of a metadata structure for large-scale inode object such as file and directory. We describe the architecture and design issues of our shared-disk file system and provide the efficient bitmap for providing the well-formed block allocation in each host, extent-based semiflat structure for storing large-scale file data, and two-phase directory structure of using extendible hashing. Also we describe a detailed algorithm for implementing the file system's device driver in Linux Kernel and compare our file system with the general file system like EXT2 and shared disk file system like GFS in terms of file creation, directory creation and I/O rate.

Subfile: C
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48/3,AB/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC
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7685765 INSPEC Abstract Number: C2003-08-6120-032
Title: SANTopia: shared-disk file system for storage cluster
Author(s): Yong-Ju Lee; Choo-Seo Park; Gyoung-Bae Kim; Kee-Wok Rim; Bum-Joo Shin
Author Affiliation: Dept. of Comput. Syst., Electron. & Telecommun. Res. Inst., Daejeon, South Korea
Conference Title: Proceedings of the 14th IASTED International Conference Parallel and Distributed Computing and Systems p.464-9
Publisher: ACTA Press, Anaheim, CA, USA
Publication Date: 2002 Country of Publication: USA vi+860 pp.
ISBN: 0 88986 366 0 Material Identity Number: XX-2003-00540
Conference Title: PDCS 2002: 14th IASTED International Conference on Parallel and Distributed Computing and Systems
Conference Sponsor: IASTED
Conference Date: 4-6 Nov. 2002 Conference Location: Cambridge, MA, USA
Language: English
Abstract: There have been large storage demands for

manipulating multimedia data such as images and video. To solve tremendous storage demands, one major research is the SAN (storage area network) that provides local file requests directly from shared disk storage and also eliminates server bottlenecks to performance and availability. The SAN also improves network latency and bandwidth through a new channel interface like FC (fibre channel). The FC is capable of maintaining several simultaneous gigabit data transfer, but to make use of an efficient storage network like SAN, a traditional file system is not adaptable in terms of scalability, availability and consistency issues. We propose a new shared-disk file system, the so-called SANTopia file system, for shared disk storage that manipulates large-scale inode objects and provides key cluster enabling technology for Linux, helping to bring the scalability, availability and load balancing benefits of clustering to Linux. We describe the architecture and design issues of a shared-disk file system for shared disk storage and provide the efficient bitmap, extent-based semi-flat structure and two-phase directory structure using extendible hashing. We also present a cache coherence protocol using a buffer forwarding scheme to maintain efficient metadata consistency. We evaluate the performance in terms of average response time and I/O rate.

Subfile: C

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48/3,AB/3 (Item 3 from file: 2)
DIALOG(R) File 2:INSPEC
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7599533

Title: Storage service providers: the answer to SME storage?

Author(s): Rowe, G.

Journal: What to Buy for Business no.262 p.50-9

Publisher: Reed Business Publishing Group,

Publication Date: Jan. 2003 Country of Publication: UK

CODEN: WBUBDH ISSN: 0265-296X

SICI: 0265-296X(200301)262L:50:SSPA;1-#

Material Identity Number: D577-2002-011

Language: English

Abstract: IT is a generic business and often a model that develops in one sector will spread across to another. The new kid on the block is the storage service provider (SSP)-an outsourced storage solution designed for businesses without the in-house resources to manage storage themselves. The premise that SSPs use to explain the service they bring is that data storage is an increasingly crucial part of business development and strategy, especially given the huge expansion in e-business currently underway. Other factors include the cost of data management, In addition, demand peaks and troughs, and network disruptions caused by back-up routines, have fuelled the need for more effective storage facilities and management. These expanding demands for storage capacity suggest not only a need for outsourcing to SSPs, but also creating a scalable, flexible open infrastructure for storage, which can grow cost effectively with the organisation. This ties in with the trend in modern businesses of all sizes to focus resources on core business activities by outsourcing the whole IT function rather than also running complex IT systems.

Subfile: D

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68/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7895721 INSPEC Abstract Number: C2004-04-6120-045

Title: IBM Storage Tank - a heterogeneous scalable **SAN** file system

Author(s): Menon, J.; Pease, D.A.; Rees, R.; Duyanovich, L.; Hillsberg, B.

Author Affiliation: IBM Res. Div., Almaden Res. Center, San Jose, CA, USA

Journal: IBM Systems Journal vol.42, no.2 p.250-67

Publisher: IBM,

Publication Date: 2003 Country of Publication: USA

CODEN: IBMSA7 ISSN: 0018-8670

SICI: 0018-8670(2003)42:2L.250:STHS;1-G

Material Identity Number: I103-2003-002

Language: English

Abstract: As the amount of data being **stored** in the open **systems** environment continues to grow, new paradigms for the attachment and management of data and the underlying storage of the data are emerging. One of the emerging technologies in this area is the **storage area network (SAN)**. Using a **SAN** to connect large amounts of storage to large numbers of computers gives us the potential for new approaches to accessing, sharing, and managing our data and **storage**. However, existing operating systems and file systems are not built to exploit these new capabilities. IBM Storage Tank TM is a **SAN-based distributed file system and storage management** solution that enables many of the promises of SANs, including shared heterogeneous file access, centralized management, and enterprise-wide scalability. In addition, Storage Tank borrows policy-based **storage** and data **management** concepts from mainframe computers and makes them available in the open systems environment. We explore the goals of the Storage Tank project, the architecture used to achieve these goals, and the current and future plans for the technology.

Subfile: C

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68/3,AB/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC
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7848702

Title: Sorting your NAS from your **SAN** [**storage management**]

Journal: Conspectus p.12-13

Publisher: Prime Marketing Publications,

Publication Date: May 2003 Country of Publication: UK

CODEN: CONSF8 ISSN: 1351-0908

Material Identity Number: E394-2003-005

Language: English

Abstract: **Storage area networks (SAN)** and network attached storage (NAS) are both important upcoming technologies for the management of distributed data. Applications are expanding due to enriched data types, extended data sets, focus on CRM and poor design. Many organizations do not manage their data efficiently, and data are more fragmented and distributed. Such distributed topologies imply large amounts of data replication or data synchronization. In both cases, management and control of these data can be achieved by using **SAN** and NAS. NAS devices are reasonably low-cost storage devices, which works on IP-based

networks. On the other hand, **SAN** is a reasonable option for networked storage. A **SAN** is a self-contained high-speed interconnection used to connect a number of logically grouped storage devices and servers. Both architectures provide appropriate architecture to growing enterprise data issues. However, which topology is right and within that, how the solution is designed depends on the precise issues in your own organization. If you have a large number of servers, if you have mission-critical data, or if you are moving to a more distributed business from a centralized business, **NAS** or **SAN** are most likely the solution to your **data storage requirements**.

Subfile: D
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68/3,AB/3 (Item 1 from file: 8)
DIALOG(R)File 8:EI Compendex(R)
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05701887

E.I. No: EIP00115405311
Title: Ask not how to **manage your data storage**
Author: Cervar, Robin
Corporate Source: StorageNetworks, Waltham, MA, USA
Source: Storage Management Solutions v 5 n 4 2000. p 28-31
Publication Year: 2000
CODEN: SMSOFD
Language: English

Abstract: A Storage Services Provider (SSP) can be tapped as a centralized resource to confront a variety of **data storage management** challenges, a task that takes so much time and human resource. This article discusses the key criteria in researching the best SSP, namely vendor-neutral strategies, **Storage Services Management** software, globally networked **storage** platform, and guaranteed service.

68/3,AB/4 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2004 INIST/CNRS. All rts. reserv.

13702932 PASCAL No.: 98-0457635
An Intelligent Data Layout Mechanism for high-performance image retrieval
Image display : San Diego CA, 22-24 February 1998
LEUNG K; WENCHAO TAO; LIMIN YANG; KIMME-SMITH C; BASSETT L; VALENTINO D J
YONGMIN KIM, ed; SEONG KI MUN, ed
Department of Radiological Sciences, University of California, Los Angeles, United States
International Society for Optical Engineering, Bellingham WA, United States.

Image display. Conference (San Diego CA USA) 1998-02-22
Journal: SPIE proceedings series, 1998, 3335 297-305
Language: English
Trends in medical imaging indicate that the **storage requirements** for digital medical datasets require a more efficient, scalable storage architecture for large-scale RIS/PACS to support high-speed retrieval for multiple concurrent clients. As storage SUP 2 and networking technologies mature, the cost of applying such technologies in medical imaging has become more economically viable. We propose to take advantage of such economies of scale in technology to provide an effective network workstation storage solution for achieving 1) faster display and

navigation response time, 2) higher server throughput and 3) better **data storage management**. Full-field direct digital mammography presents a challenging problem in the design of digital workstation systems for screening and diagnosis. Due to the spatial and contrast resolution required for mammography, the digital images are large (exceeding 5K x 6K x 14 bits similar = 60MB per image) and therefore difficult to display using commercially available technology. We are developing clinically useful methods of storing, displaying and manipulating large digital images in a medical media server using commercial technology. In this paper we propose an Intelligent Grid-based Data Layout Mechanism to optimize the total response time of a reading by minimizing the speed of image access (data I/O time) and the number of data access requests to the server (queueing effects) during the image navigation. A Navigation Threads Model is developed to characterize the performance of many navigation threads involved in the course of performing a reading session. In our grid-based data layout approach, a large 2D direct-digital mammogram image is divided spatially into many small 2D grids and is stored into an array of magnetic disks to provide parallel grid-based readout services to clients. Such a grid-based approach not only provides fine-granularity control, but also provides a means of collecting statistical information about the distribution of Region of Interests (ROI) for a given image in the **storage systems**. Hence, it provides statistical rules to guide image navigation and guidelines for reorganizing the data layout within the storage server (replication of ROI blocks) dynamically; hence, better load balancing can be achieved and the overall image navigation throughput for the system can be maximized. Given the same buffer capacity and data access mode, this technique can statistically guarantee the maximum image retrieval time, and can scale-up easily without significant performance degradation. Throughout this paper, we assume that a high-speed network is used in our client/server model and network latency (data communication cost) is minimal compared to data I/O cost. In addition, the cost of reporting diagnostic results associated with the total response time is assumed to be negligible.

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68/3,AB/5 (Item 1 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.

015523208

WPI Acc No: 2003-585355/200355

XRPX Acc No: N03-465985

Virtualized **data storage management** system in network
storage systems, manages each virtual disk which is abstract
 representation of virtualized logical disks, to select logical disks
 represented by virtual disk

Patent Assignee: BEAN R G (BEAN-I); HELLIWELL R P (HELL-I); HUA M Y
 (HUAM-I); LUBBERS C E (LUBB-I); ROBERSON R L (ROBE-I); WOESTEHOF K D
 (WOES-I)

Inventor: BEAN R G; HELLIWELL R P; HUA M Y; LUBBERS C E; ROBERSON R L;
 WOESTEHOF K D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030079014	A1	20030424	US 200143924	A	20011022	200355 B

Priority Applications (No Type Date): US 200143924 A 20011022

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 20030079014 A1 15 G06F-015/173

Abstract (Basic): US 20030079014 A1

Abstract (Basic):

NOVELTY - Each of the virtual disks (725), which is an abstract representation of several virtualized logical disks (722) each representing a physical storage capacity provided by a physical **store** (712), includes a **management** interface which manages the virtual disk to select the logical disks represented by the virtual disk.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for method for virtualized **data storage management** method.

USE - For **managing** virtualized **data storage** in network **storage system** such as network-attached storage (NAS) and **storage area network (SAN)** systems.

ADVANTAGE - Enables creating virtual disks from logical disks which are by themselves virtualization of physical storage capacity, rather than from physical disks, thereby enabling interaction that is truly independent of the physical storage implementation.

DESCRIPTION OF DRAWING(S) - The figure shows the structure of the virtualized **data storage management system**.

physical store (712)

logical disks (722)

virtual disk (725)

pp; 15 DwgNo 7/8

68/3,AB/6 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014523586

WPI Acc No: 2002-344289/200238

XRPX Acc No: N02-270908

Computer system for **data storage management**, in which server and **storage system** are interconnected by fiber channel switch, through **storage area network**

Patent Assignee: HITACHI LTD (HITA)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002007304	A	20020111	JP 2000189838	A	20000623	200238 B

Priority Applications (No Type Date): JP 2000189838 A 20000623

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
JP 2002007304 A 26 G06F-013/14

Abstract (Basic): JP 2002007304 A

Abstract (Basic):

NOVELTY - A **storage area network (SAN)** forms a circuit network which interconnects a server and a **storage system** by a fiber channel (FC) switch. A terminal implements a management software to perform **data storage management**, setting **management** of FC switch and data back-up, in the network.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for data

processing method.

USE - For **data storage** and resource **management** in LAN/WAN for internet applications, data warehouse, electronic commerce, etc.

ADVANTAGE - Enables to build integrated **storage** system using **storage area network**. Internet information service is provided efficiently and quickly with high quality and low cost. Enables **data storage** of large capacity and its utilization.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic view of integrated **storage system**. (Drawing includes non-English language text).

pp; 26 DwgNo 1/21

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2004/Aug W5
(c) 2004 Institution of Electrical Engineers

*File 2: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.

File 6:NTIS 1964-2004/Aug W4
(c) 2004 NTIS, Intl Cpyrght All Rights Res

File 8:Ei Compendex(R) 1970-2004/Aug W5
(c) 2004 Elsevier Eng. Info. Inc.

File 34:SciSearch(R) Cited Ref Sci 1990-2004/Sep W1
(c) 2004 Inst for Sci Info

File 35:Dissertation Abs Online 1861-2004/Aug
(c) 2004 ProQuest Info&Learning

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File 92:IHS Intl.Stds.& Specs. 1999/Nov
(c) 1999 Information Handling Services

*File 92: This file temporarily not updating.

File 94:JICST-EPlus 1985-2004/Aug W2
(c)2004 Japan Science and Tech Corp(JST)

File 95:TEME-Technology & Management 1989-2004/Jun W1
(c) 2004 FIZ TECHNIK

*File 95: Customers in Germany, Austria, and Switzerland should contact their local Dialog representative.

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(c) 2004 The HW Wilson Co.

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*File 103: For access restrictions see Help Restrict.

File 144:Pascal 1973-2004/Aug W5
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File 202:Info. Sci. & Tech. Abs. 1966-2004/Jul 12
(c) 2004 EBSCO Publishing

File 233:Internet & Personal Comp. Abs. 1981-2003/Sep
(c) 2003 EBSCO Pub.

File 239:Mathsci 1940-2004/Oct
(c) 2004 American Mathematical Society

File 275:Gale Group Computer DB(TM) 1983-2004/Sep 09
(c) 2004 The Gale Group

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info

File 647:CMP Computer Fulltext 1988-2004/Aug W5
(c) 2004 CMP Media, LLC

File 674:Computer News Fulltext 1989-2004/Aug W3
(c) 2004 IDG Communications

File 696:DIALOG Telecom. Newsletters 1995-2004/Sep 08
(c) 2004 The Dialog Corp.

Set	Items	Description
S1	1295	(DATA OR DATUM) () (STORAG? OR STORE?? OR STORING) () (MANAG? - OR MEDIA OR MEDIUM)
S2	120528	(STORAG? OR STORE?? OR STORING OR MEMOR?) (3N) (ANALYS? OR - ANALYZ? OR MANAG?)
S3	15381	COMPUTER? (3N) ACCESSIBL? OR (DISK OR DISKS OR DISC OR DISCS-) () (BASED OR DATA OR DATUM OR MEMOR?)
S4	64586	(DISK OR DISKS OR DISC OR DISCS) (3N) (BASED OR DATA OR DATUM OR MEMOR?)
S5	53	(STORAG? OR STORE?? OR STORING? OR MEMOR?) (3N) (INVENTORY??? OR INVENTORIES OR AVAILABIL? OR AVAILABL?) (3N) RISK???
S6	19	(STORAG? OR STORE?? OR STORING OR MEMOR?) (1W) DEMAND? (1W) (D-ATA OR DATUM)
S7	800	(STORAG? OR STORE?? OR STORING) () DEMAND?
S8	15213	DEMAND? (3N) (CAPACITY OR CAPACITIES OR VARIABILIT? OR VARIA-BLE? OR CHANGEABL?)
S9	274581	(STORAG? OR STORE?? OR STORING OR MEMOR?) (3N) (REQUIREMENT? ? OR SYSTEM? ?)
S10	12309	SAN (3N) COMPUTER? OR STORAG? () AREA () NETWORK? ?
S11	453	S1 AND S2
S12	13	S11 AND S3
S13	13	RD (unique items)
S14	440	S11 NOT S12
S15	44	S14 AND S4
S16	0	S15 AND S5
S17	0	S15 AND S6
S18	4	S15 AND S7
S19	4	RD (unique items)
S20	40	S15 NOT S18
S21	29	S20 AND COMPUTER?
S22	1	S21 AND S8
S23	28	S21 NOT S22
S24	23	S23 AND S9
S25	3	S24 AND S10
S26	3	RD (unique items)
S27	20	S24 NOT S25
S28	20	RD (unique items)
S29	20	S27
S30	38	S1 AND S3
S31	1	S30 AND S10

13/3,AB/1 (Item 1 from file: 202)
DIALOG(R)File 202:Info. Sci. & Tech. Abs.
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3200130

Method for managing clustered medical data and medical data filing system in clustered form.

Author(s): Nematbakhsh, M A; Tsubura, S.

Patent Number(s): US 5572422

Publication Date: Nov 5, 1996

Language: English

Document Type: Patent

Journal Announcement: 3200

In a medical data managing system, a plurality of medical data are first classified based on a classification item such as sorts of medical examinations. Thereafter, the classified medical data are stored in the same optical disk in order to effectively search/retrieve desirable medical data from a plurality of optical **disks based upon the** classification item covering this desirable ~~medical data~~. A medical data managing system comprises: a unit for sequentially acquiring ~~a plurality of~~ medical data about a biological body under ~~medical examination~~; a unit for classifying the plurality of medical data based upon at least one of medical classification items to obtain a plurality of classified medical data; and a unit for sequentially storing the plurality of classified medical data into a plurality of data storage mediums in such a manner that the plurality of classified medical data belonging to the same classification item are stored in the same data storage medium.

13/3,AB/2 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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02463665 SUPPLIER NUMBER: 68018196 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The SANs Cometh.(Column)
Toigo, Jon William
Enterprise Systems Journal, 15, 12, 22
Dec, 2000
DOCUMENT TYPE: Column ISSN: 1053-6566 LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 905 LINE COUNT: 00070

13/3,AB/3 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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02300135 SUPPLIER NUMBER: 54726037 (USE FORMAT 7 OR 9 FOR FULL TEXT)
storage.(data storage trends)(Industry Trend or Event)
Neema, Farid; Waid, Dennis
UNIX Review's Performance Computing, 17, 7, 21
June 15, 1999
LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 3884 LINE COUNT: 00335

ABSTRACT: The turmoil in the network storage industry makes forecasting difficult. Many organizations are turning to their databases as a foundation for becoming information-driven companies. These companies will

base their business processes on access to reliable information concerning customers, markets, products, technologies and their competitors. Data access and management are key issues in moving mission-critical applications to distributed networks. The renewed emphasis on data storage and access is driving demand for increased storage capacity. Declines in magnetic disk storage have also helped to increase demand. New technologies, including data mining, e-commerce, videoconferencing and multimedia, are also stimulating demand for increased storage space.

13/3,AB/4 (Item 3 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01974628 SUPPLIER NUMBER: 18618519
Storage: MTI announces new solid-state disk database accelerators;
high-speed storage systems reduce database I/O bottlenecks. (MTI
Technology Corp's SSD Database Accelerators) (Product Announcement)
EDGE: Work-Group Computing Report, v7, p24(1)
August 26, 1996
DOCUMENT TYPE: Product Announcement LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 706 LINE COUNT: 00063

13/3,AB/5 (Item 4 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01937721 SUPPLIER NUMBER: 18272375 (USE FORMAT 7 OR 9 FOR FULL TEXT)
HSM: on a pedestal of promise. (hierarchical **storage management**
) (includes related article on rating HSM solutions) (Technology
Information)
Koliopoulos, Pete; Sutton, Gerry
HP Professional, v10, n4, p18(4)
April, 1996
ISSN: 0896-145X LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 1712 LINE COUNT: 00135

ABSTRACT: Hierarchical **storage management** (HSM) supplies a UNIX-based, cost-effective solution for storing and accessing data, but a few deficits remain. With HSM, managers can forego costly magnetic disk storage for a magnetic tape library and optical jukebox, which are much less expensive. While HSM automates **storage management**, shares data across heterogeneous environments and safeguards stored data against loss, implementing the technology is still tricky. HSM implementations must 'fool' a system into believing data is elsewhere while still allowing the data to be recalled. Problems with a full backup requiring migrated files to be pulled off an optical disk or tape have prompted HSM vendors to provide a method of side-stepping migration/reload. Under HSM, each file has additional storage overhead. New products from IBM, EMASS, Qtar and others aim to simplify the chores of implementing and operating HSM.

13/3,AB/6 (Item 5 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01674879 SUPPLIER NUMBER: 15068645 (USE FORMAT 7 OR 9 FOR FULL TEXT)
1994 market directory issue: more than 600 information technology company

listings. (vendors of health technology-related products and services,
organizations and events) (Directory)
Health Management Technology, v15, n3, p14(113)
Feb 15, 1994
DOCUMENT TYPE: Directory LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT;
ABSTRACT
WORD COUNT: 69033 LINE COUNT: 06228

ABSTRACT: Over 600 healthcare information systems hardware, software and services vendors and consultants are listed alphabetically by company name. The companies are cross-referenced by over 175 categories and subcategories of products and services they offer. The companies are also divided by their type of operation: publicly held, privately held, consulting service or association. Other associations, agencies, groups and non-health providing members of Health Level Seven are separately listed. A calendar of 1994 health industry conferences, trade shows and conventions is provided.

13/3,AB/7 (Item 6 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01671567 SUPPLIER NUMBER: 15073772 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Hardware. (Buyers Guide)
Wall Street & Technology, v11, n8, p12(8)
Annual, 1994
DOCUMENT TYPE: Buyers Guide ISSN: 1060-989X LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 6569 LINE COUNT: 00572

ABSTRACT: A buyer's guide to general hardware products for all industries is presented. Brief product descriptions and vendor names, addresses, phone numbers and fax numbers are provided. Single user computer systems include microcomputers, portables, laptops, notebooks and workstations. Local area network (LAN) systems include LAN management systems, connectors, micro-to-mainframe links, controllers and performance monitoring devices. Multi-user computer systems include mainframes, minicomputers and servers. Printers include daisywheel, dot matrix, laser and magnetographic. Storage devices include CD-ROM drives, hard disk and tape backup systems, and optical disk devices. Communications equipment includes data communications devices, modems, telecommunications systems, VSAT, voice data systems and voice response systems. Miscellaneous categories include monitors, optical scanners, automatic dialers and fax machines.

13/3,AB/8 (Item 7 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01631651 SUPPLIER NUMBER: 14808343 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Optical storage filling a void. (Storage)
Dennis, Carol
Computing Canada, v19, n23, p41(1)
Nov 8, 1993
ISSN: 0319-0161 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 576 LINE COUNT: 00048

ABSTRACT: Computer storage technology is presenting new methods of storing, securing and managing the extensive amounts of data

being generated by information systems. A near-mainframe level of data storage can be provided by utilizing hierarchical **storage management** techniques along with optical and tape jukebox systems and automated network **management** products. Optical **storage** provides an ideal mid-range storage solution, coming between magnetic disk storage, the highest in expense, and off-line tape systems, which are the least expensive but the most difficult to access. Optical storage is thus able to provide hierarchical data management, easy data migration to and from **data storage media**, on-disk format information, device and removable volume management and continuous file versioning.

13/3,AB/9 (Item 8 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01584261 SUPPLIER NUMBER: 13400612 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Enter at your own risk: RAID is ensnared in a tangle of misconceptions.
(Redundant Array of Inexpensive Disks) (includes related article on case study of Kay Wholesale)

Dickey, Sam
MIDRANGE Systems, v6, n3, p27(4)
Feb 9, 1993

ISSN: 1041-8237 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3052 LINE COUNT: 00229

ABSTRACT: Redundant Array of Inexpensive Disk (RAID) technology provides data protection through specially-designed drive arrays and software; it may or may not speed performance and is often expensive. A disk array subsystem can alleviate I/O bottlenecks by distributing the load of a single disk drive across multiple small drives. The two techniques underlying RAID's ability to reconstruct data from a failed disk include striping, which interleaves data across multiple disks, and parity, which uses special data bits to reconstruct lost data. There are six levels of RAID implementation. Level 0 offers disk striping but no parity, while Level 1 is simple disk mirroring. Level 2 provides both striping and parity through multiple dedicated parity disks. Level 3 uses synchronized disks and a single parity drive; Level 4 uses a single parity drive but does not synchronize the disks in the array. Level 5 allows independent disk access and spreads parity data across all the drives. RAID will never dominate the storage industry entirely, but IBM's entry into the RAID subsystems market has strengthened it.

13/3,AB/10 (Item 9 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01544817 SUPPLIER NUMBER: 12755002 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tape libraries a key part of the 'storage decade.' (Storage Devices)

Andrews, John
Computing Canada, v18, n21, p51(1)
Oct 13, 1992

ISSN: 0319-0161 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 491 LINE COUNT: 00038

ABSTRACT: Backup systems featuring eight-mm tape and data management software programs are an efficient way to perform **data storage management**. **Analysts** predict that organizations will spend more on data storage than on central processing units (CPUs) in the 1990s. Data

storage and backup involves hardware, software and labor, but while costs of most hardware and software products are decreasing, labor costs continue to rise. Data management software and eight-mm tape libraries can help lower labor storage costs by automating virtually every backup procedure. Data management software can schedule and perform unattended system backups, automate archiving and rotate tapes for accurate backup. It reduces the labor needed to restore files by storing data in a near-by tape library. Eight-mm is an obvious choice for storage media because it is widely accepted as an interchange standard.

13/3,AB/11 (Item 10 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01499316 SUPPLIER NUMBER: 11937277 (USE FORMAT 7 OR 9 FOR FULL TEXT)
GP MIMD at Supercomputing Europe- participants, products & profits.
(Supercomputing Europe '92 trade show, GP MIMD supercomputer project)
Computergram International, n1863, CGI02210008
Feb 21, 1992
ISSN: 0268-716X LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1087 LINE COUNT: 00085

13/3,AB/12 (Item 11 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01301385 SUPPLIER NUMBER: 07397312 (USE FORMAT 7 OR 9 FOR FULL TEXT)
A data base for real-time applications and environments. (HP's Real-Time Data Base) (technical)
Fatehi, Feyzi; Givens, Cynthia; Hong, Le T.; Light, Michael R.; Liu, Ching-Chao; Wright, Michael J.
Hewlett-Packard Journal, v40, n3, p6(12)
June, 1989
DOCUMENT TYPE: technical ISSN: 0018-1153 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 8651 LINE COUNT: 00665

ABSTRACT: Hewlett-Packard's HP Real-Time Data Base (HP RTDB) is a database management system (DBMS) for developing, managing and interacting with a real-time data base. Real-time databases must store bursts of data quickly and efficiently and provide that information without delay in real-time environments such as factory floor operations. HP RTDB's features include: database definition functions; write and query operations; backup functions; high performance; access to multiple databases; dynamic reconfiguration; security features; and programming aids. The major modules are divisible into user-callable and internal database routines. Details of HP RTDB's data structures, data access, database configuration and design, locking and concurrency control, security, querying and other features are described. HP RTDB runs under HP-UX on an HP 9000 Series 300 or 8000 computer.

13/3,AB/13 (Item 12 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01212645 SUPPLIER NUMBER: 04627744 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Videotape backup is reliable, cheap method. (videocassette recorder

disk-backup systems)
Rosenthal, Steve
PC Week, v4, n5, p82(2)
Feb 3, 1987

ISSN: 0740-1604 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1270 LINE COUNT: 00098

ABSTRACT: Videocassette recorders that are used as disk-backup systems are becoming more popular due to the economic advantages of mass production and the inexpensive media that are both utilized by the **data storage media**. Data is generated on videotape in the form of standard video signals by videocassette recorder disk-backup systems. Alpha Microsystems sells the Alpha Micro Videotrax videocassette recorder, a system that incorporates software, a videocassette recorder, and a board-card.

19/3,AB/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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02481834 SUPPLIER NUMBER: 71186419 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Storage disaster: will you recover? -- Your data is your lifeline. Are you
prepared to revive it in the event of a disaster?(Industry Trend or
Event)
Toigo, Jon William
Network Computing, 38
March 5, 2001
ISSN: 1046-4468 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 3756 LINE COUNT: 00306

19/3,AB/2 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

01713166 SUPPLIER NUMBER: 16434214 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Total data control. (**storage management**) (includes related
article) (Special Report: Storage)
IBM System User, v15, n7, pS37(4)
July, 1994
ISSN: 0950-303X LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2838 LINE COUNT: 00223

ABSTRACT: Vendors are being challenged to provide hierarchical **storage management** capabilities. Such a task requires increasing the integration of **storage** and network **management** to develop an organization-wide storage architecture supporting mainframes, the AS/400, Unix and microcomputer networks. Storage suppliers are either forming alliances with networking companies or recruiting networking expertise to expand their **storage management** capabilities. IBM Corp.'s vision for **storage management** is recasting the mainframe as the hub machine of a new client/server environment. Data will travel to the center, making the mainframe the corporate superserver with its system **managed storage** architecture providing a single, organization-wide view of the data hierarchy.

19/3,AB/3 (Item 3 from file: 275)
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01689065 SUPPLIER NUMBER: 15558773 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Mass-storage strategies: reliable access to digital info. (includes buyers
guide) (Buyers Guide)
Cummings, Steve
MacWEEK, v8, n27, p25(2)
July 4, 1994
DOCUMENT TYPE: Buyers Guide ISSN: 0892-8118 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2007 LINE COUNT: 00156

ABSTRACT: MIS managers need to establish careful strategies for choosing storage technologies and implementing the right balance of storage hardware in order to offer users fast and affordable access to large amounts of data. The size of files and the volume of data are two important

considerations, as is the location of **data storage**.

Managers should also consider the varying technological characteristics for different storage devices. The graphics and pre-press fields, as well as multimedia and digital video, present the most demanding storage requirements, extending to the multiterabyte range. The data volume is lower at sites where the Macintosh conducts mundane business duties. RAID storage and jukeboxes are discussed, and a buyers' guide is presented.

19/3,AB/4 (Item 1 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2004 CMP Media, LLC. All rts. reserv.

01232857 CMP ACCESSION NUMBER: NWC20010305S0017
Storage disaster: will you recover? - Your data is your lifeline. Are you prepared to revive it in the event of a disaster?
Jon William Toigo
NETWORK COMPUTING, 2001, n 1205, PG38
PUBLICATION DATE: 010305
JOURNAL CODE: NWC LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: COVER STORY
WORD COUNT: 3439
TEXT:

In recovering from an IT disaster, timing is everything. Costs can mount quickly with each minute that access is denied to critical systems, networks and data. That's why it's essential to have a plan for getting your data back-whether that means replicating your entire network or just the critical pieces of it, using company-owned or outside resources.

22/3,AB/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

02213305 SUPPLIER NUMBER: 21080392 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Storage: Hitachi Breaks the Density Barrier with Industry's First 256-Mbit
Flash Memory Components.(Hitachi Semiconductor (America) Inc's
CompactFlash and PCMCIA flash cards) (Company Business and Marketing)
EDGE, on & about AT&T, v12, n31, pNA(1)
August 31, 1998
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 951 LINE COUNT: 00083

26/3,AB/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

02551944 SUPPLIER NUMBER: 79661070 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Storage Virtualization 101 -- Awash in data, the Plumbers and Pipefitters
National Pension Fund turned to a Fibre Channel-based SAN for relief from
"forklift" RAID upgrades.

Carr, Jim
Network Magazine, 52
Nov 1, 2001

ISSN: 1093-8001 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 3238 LINE COUNT: 00273

26/3,AB/2 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

02481835 SUPPLIER NUMBER: 71186420 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Rfi: Storage Disaster-Recovery Services -- When you have a piecemeal
storage architecture and burgeoning data, a disaster can wipe out your
business. Storability addresses our fictional RFI scenario with a
flexible recovery solution that won't cost you the shirt off your
back.(Editorial)

Toigo, Jon William
Network Computing, 53
March 5, 2001

DOCUMENT TYPE: Editorial ISSN: 1046-4468 LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 5404 LINE COUNT: 00446

26/3,AB/3 (Item 1 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2004 CMP Media, LLC. All rts. reserv.

01232858 CMP ACCESSION NUMBER: NWC20010305S0018
Rfi: Storage Disaster-Recovery Services - When you have a piecemeal
storage architecture and burgeoning data, a disaster can wipe out your
business. Storability addresses our fictional RFI scenario with a
flexible recovery solution that won't cost you the shirt off your
back.

Jon William Toigo
NETWORK COMPUTING, 2001, n 1205, PG53
PUBLICATION DATE: 010305
JOURNAL CODE: NWC LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: Cover Story - REVIEW
WORD COUNT: 4908

TEXT:

Data proliferates, old and new storage topologies get kludged, and
what's left for many companies is a disaster in the making. To determine
how vendors of recovery services might address these challenges, Network
Computing issued an RFI (request for information) for a fictional company,
Terrific T-Shirts. A midsize, just-in-time manufacturer of T-shirts
printed with corporate brands and logos, the company has an infrastructure
that comprises numerous critical systems and, more important, a diversity
of storage platforms-including SAS (server-attached storage), NAS
(network-attached storage) and SANs (storage area

networks)-dedicated to different aspects of business operations. We sought a solution for storage recovery rather than a comprehensive solution for all IT infrastructure (see "Terrific T- Shirts' Dilemma," page 56).

29/3,AB/1 (Item 1 from file: 6)
DIALOG(R)File 6:NTIS
(c) 2004 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

0501938 NTIS Accession Number: N75-21035/1/XAB
Set Processing in a Network Environment
Hardgrave, W. T.
Universities Space Research Association, Charlottesville, Va. Inst. for
Computer Applications in Science and Engineering.
Report No.: NASA-CR-142597; ICASE-75-7
31 Mar 75 54p
Journal Announcement: GRAI7515; STAR1312
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S.
customers); (703)605-6000 (other countries); fax at (703)321-8547; and
email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road,
Springfield, VA, 22161, USA.
NTIS Prices: PC A04/MF A01

A combination of a local network, a mass **storage system**, and
an autonomous set processor serving as a **data/storage**
management machine is described. Its characteristics include:
content-accessible data bases usable from all connected devices; efficient
storage/access of large data bases; simple and direct programming with data
manipulation and **storage management** handled by the set
processor; simple data base design and entry from source representation to
set processor representation with no predefinition necessary; capability
available for user sort/order specification; significant reduction in
tape/disk pack storage and mounts; flexible environment that allows
upgrading hardware/software configuration without causing major
interruptions in service; minimal traffic on data communications network;
and improved central memory usage on large processors. (Author)

29/3,AB/2 (Item 1 from file: 8)
DIALOG(R)File 8:EI Compendex(R)
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04671857
E.I. No: EIP97043627641
Title: Hewlett-Packard's optical jukebox system keeps McDonnell Douglas
flying on the NASA space station
Author: Anon
Source: International Journal of Micrographics & Optical Technology v 15
n 1 1997. p 10-12
Publication Year: 1997
CODEN: IMOTEX ISSN: 0958-9961
Language: English
Abstract: It is a challenge to provide the day-to-day environment
information support for the 400 **computer** users of NASA.
Hewlett-Packard's optical jukebox system provided NASA with a information
management system that improved the file system of NASA's workstations
enabling easy access to information and managing hundreds of thousands of
files in the distributed environment. The jukebox also enhanced the
transfer of **data** from hard **disks** to optical storage by offering
migration tools. The efficiency and reliability of the system prevents
breakdown and contributed to the productivity and cost savings of NASA.

29/3,AB/3 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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02613934 SUPPLIER NUMBER: 87146358 (USE FORMAT 7 OR 9 FOR FULL TEXT)

The software side of storage: cheap gigabytes and terabytes can be very expensive to administer, particularly as a centralized resource.

Third-party software can make the job much easier, and the storage much more accessible.

Zeichick, Alan

EMedia Magazine, 15, 5, 32(6)

May, 2002

ISSN: 1529-7306 LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 2792 LINE COUNT: 00228

29/3,AB/4 (Item 2 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

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02579047 SUPPLIER NUMBER: 82772674 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Tower Of Power -- IT managers brace for the inevitable: petabyte-size databases.

Whiting, Rick

InformationWeek, 40

Feb 11, 2002

ISSN: 8750-6874 LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 2958 LINE COUNT: 00237

29/3,AB/5 (Item 3 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

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02474508 SUPPLIER NUMBER: 70391462 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Making a clearer case in data storage - Progress reported in industry's bid for commercial holographic storage.(Company Business and Marketing)

Lelli, Sonia R.

eWeek, 31

Feb 12, 2001

LANGUAGE: English RECORD TYPE: Fulltext; Abstract

WORD COUNT: 857 LINE COUNT: 00069

ABSTRACT: Lucent Technologies Inc. and its research arm, Bell Laboratories, announce a breakthrough in their efforts to adapt holographic technology to the rigorous **requirements** of commercial **storage** products. Holographic technology could enable IT **managers** to **store** more data on smaller devices and transfer the data faster.

Nelson Diaz, president and CEO of InPhase Technologies, in Longmont, Colo, affirms that a new holographic storage medium holds the potential to enable vendors to store thousands of times more data than the current generation of products without suffering from data deterioration.

29/3,AB/6 (Item 4 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

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02463788 SUPPLIER NUMBER: 68951292 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Let's Get Virtual Who Said Storage Isn't Sexy?

Toigo, Jon William

Enterprise Systems Journal, 16, 1, 16

Jan, 2001

ISSN: 1053-6566 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 1838 LINE COUNT: 00155

29/3,AB/7 (Item 5 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

02263953 SUPPLIER NUMBER: 19271732 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Solving the need to forage for storage. (buyer's guide of 47 optical
jukeboxes) (includes related article on combining CD-ROM network server
and optical disc changer technologies) (includes table of vendors and
standard product features) (Buyers Guide)
Breeding, Marshall
Network Computing, v8, n6, p120(10)
April 1, 1997
DOCUMENT TYPE: Buyers Guide. ISSN: 1046-4468 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 2909 LINE COUNT: 00230

ABSTRACT: A buyer's guide of 47 alternatives for large-scale data storage, including optical disc changers and CD-ROM network servers, is presented. Many enterprises realize the benefits of optical discs such as high capacity, low cost and long media life. Basic optical drives provide extensive storage capacity and can manage up to hundreds of discs. Organizations can increase the benefits of optical disc changers by connecting them to their networks. Optical disc changers are most beneficial to specialized data environments such as those with significant data volumes that are simultaneously required by limited users. Optical storage encompasses several types of technologies such as CD-R, WORM and MO. CD-ROM network servers, however, provide network access to CD-ROM discs' prerecorded data. CD-ROM is the most popular medium for data distribution and is increasingly being employed for software installation.

29/3,AB/8 (Item 6 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01916649 SUPPLIER NUMBER: 18132609 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Create your own CD. (CD-recordable hardware and software) (includes a
related article answering frequently asked questions about making CDs)
(Technology Information) (Cover Story)
Seymour, Jim
PC Magazine, v15, n7, p99(5)
April 9, 1996
DOCUMENT TYPE: Cover Story ISSN: 0888-8507 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 3424 LINE COUNT: 00246

ABSTRACT: CD-recordable (CD-R) technology has become more affordable: a high-quality CD-R drive that fits in a half-height drive bay in a PC costs less than \$1,000, and name-brand disks cost \$7 or less, while software bundled with the drives makes creating CD-ROMs fast and easy. CD-R drive sales are expected to increase from 165,000 in 1995 to 500,000 in 1996; they are used in PCs for archival data storage, backing up hard disks, and business publishing. Most CD-R drives write at 2X speed and read at 4X speed, although low-cost devices still only read at 2X speed; their ability to read standard CDs means they could conceivably replace CD-ROM drives in

business PCs. CD-R premastering software is used to arrange and format data to be burned onto a CD; the scaled-down versions bundled with CD-R drives vary in ease of use and CD formats supported. Aspects to consider when selecting a CD-R system are discussed.

29/3,AB/9 (Item 7 from file: 275)
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01854421 SUPPLIER NUMBER: 17443202 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Highlights from the exhibition. (includes related articles on art galleries, publishing, printing and Postscript, and Masters of Media showcase) (special supplement to Seybold San Francisco '95) (Industry Trend or Event)
Seybold Report on Publishing Systems, v25, n2, pS10(29)
Sep 18, 1995
ISSN: 0736-7260 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 24458 LINE COUNT: 02000

29/3,AB/10 (Item 8 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01723361 SUPPLIER NUMBER: 16314509 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Network backup with the HP C1553A DDS autoloader. (DAT tape drive) (sidebar to "DDS-2 Tape Autoloader: High-Capacity Data Storage in a 5.25-inch Form Factor")
Bertagne, Michael G.
Hewlett-Packard Journal, v45, n6, p18(2)
Dec, 1994
ISSN: 0018-1153 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1716 LINE COUNT: 00130

ABSTRACT: Centralized automated backup of a network with the HP C1553A Digital Data Storage-2 (DDS-2) autoloader offers several advantages but also requires addressing some performance considerations. The C1553A can store up to 8MB of compressed data on each of its six DDS-2 tape cartridges in a single, unattended session. Advantages of the **system** include **storing** all of the data of multiple server and client systems on a network, improved physical security by centralizing all backups in one place, configuration of the backup up tapes to store data from specific server and client systems, elimination of the need for the system administrator to actively manage the back up task, and lower costs than hard disk backup. The C1553A's tape drive offers a data transfer rate of up to 510-KBps, but approaching the highest rates requires RAID disk array sources, low network traffic and faster network topologies.

29/3,AB/11 (Item 9 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01631653 SUPPLIER NUMBER: 14809805 (USE FORMAT 7 OR 9 FOR FULL TEXT)
HSM cuts costs, saves data. (**analysis** of the hierarchical **storage management system**)
Andrews, John
Computing Canada, v19, n23, p46(1)
Nov 8, 1993

ISSN: 0319-0161 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 993 LINE COUNT: 00080

ABSTRACT: Hierarchical **storage management** (HSM) is providing an ideal method for the prioritization and ~~management of stored~~ organizational data. Utilizing a hardware and software HSM system, an organization can employ a ~~three-tiered system~~ in which valuable space on the hard disk is reserved for the most frequently used or current data, while optical storage is used for a second level of data and 4- or 8-millimeter tape libraries are used as tertiary **storage systems** for little used data. These tape libraries are typically sold in a compact and modular form to ensure space saving and serviceability. A variety of HSM software is available that automates such network administration functions as disk grooming and media rotation. With the amount of data and the cost of storing it on the rise, more users are expected to adopt HSM technology.

29/3,AB/12 (Item 10 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01593717 SUPPLIER NUMBER: 13736187 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Briefs. (New & Improved)
Grimes, Brad
PC Magazine, v12, n9, p60(3)
May 11, 1993
ISSN: 0888-8507 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1003 LINE COUNT: 00074

29/3,AB/13 (Item 11 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01582848 SUPPLIER NUMBER: 13357324 (USE FORMAT 7 OR 9 FOR FULL TEXT)
General applications/systems software. (1993 edition) (Buyers Guide)
Wall Street & Technology, v10, n5, p28(11)
Jan, 1993
DOCUMENT TYPE: Buyers Guide ISSN: 1060-989X LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 13348 LINE COUNT: 01205

ABSTRACT: Software applications and system software appropriate for Wall Street professionals is presented. Among the uses for the software are: artificial intelligence and expert systems construction; accounting; **computer**-aided software engineering; communications; desktop publishing; document storage and retrieval; electronic mail; voice mail; database management; graphics; imaging; on-line transaction processing; operating systems, windowing and programming languages; payroll; human resources management; project management; structured query language and server systems; spreadsheets; statistical analysis; Unix-like operating systems; and word processing. Other software, such as software re-engineering programs, network management software and portfolio management software, are listed. Includes names, addresses and telephone numbers of companies.

29/3,AB/14 (Item 12 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)

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01547218 SUPPLIER NUMBER: 12903718 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Flash memory offers potential for compact storage solution. (new standard
for flash ROM) (MacWEEK Special Report: Mass Storage)
Weibel, Bob; Schneier, Bruce
MacWEEK, v6, n41, p72(1)
Nov 16, 1992
ISSN: 0892-8118 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1003 LINE COUNT: 00078

ABSTRACT: Flash memory or flash ROM, a form of nonvolatile memory that combines the permanence of ROM with the rewrite flexibility of dynamic RAM, is an increasingly attractive storage solution for portable and hand-held **computers** and promises to make credit-card-size memory modules a convenient **data-storage medium**. Flash memory is currently used to store configuration data, printer fonts and software programs that do not take up more than a few megabytes of space and are ideal for built-in code that is likely to change. Most flash-memory designs evolved from electrically erasable programmable ROMs but offer greater capacity and efficiency. Some PostScript printers use flash-memory chips as solid-state 'disks' for storing fonts. Other applications include network routers, which often need updates to driver software, and future devices such as the Newton personal digital assistant, which will come with much of its software built in. Flash memory still cannot replace dynamic RAM; it must be erased before it can be written to, a time-consuming procedure, and it wears out after a number of rewrites.

29/3,AB/15 (Item 13 from file: 275)
DIALOG(R) File 275:Gale Group Computer DB(TM)
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01541428 SUPPLIER NUMBER: 12744831 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Management tools mature to meet storage options: focus still on Dasd, tape
media, but optical, disk arrays coming. (direct access **storage**
devices) (**Systems Management**)
Palmer, Scott D.
Software Magazine, v12, n14, p63(6)
Oct, 1992
ISSN: 0897-8085 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2927 LINE COUNT: 00225

ABSTRACT: **Data storage management** programs help optimize the use of storage media, provide fault-tolerant data storage and help organizations plan for future **storage requirements**. One of the most important factors to consider when selecting a **storage management** program is compatibility with existing systems. While the variety and sophistication of **storage management** programs continue to grow, most tools are still oriented toward traditional tape and DASD storage, with only a minority venturing into disk array technology. Software that perform the same tasks they now perform on tapes and disks will begin to appear when optical storage technology becomes more commonplace. A company which has capitalized on **storage management** tools is First Bank Corp. The bank has optimized its DASD utilization and eliminated input/output congestions with Boole and Babbage's DASD Advisor expert system.

29/3,AB/16 (Item 14 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)
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01530415 SUPPLIER NUMBER: 12585505 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Digital, Storagetek in joint disk venture. (DEC, Storage Technology Corp.)
Mallory, Jim
Newsbytes, NEW08270023
August 27, 1992
LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 746 LINE COUNT: 00061

29/3,AB/17 (Item 15 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01365475 SUPPLIER NUMBER: 08600708 (USE FORMAT 7 OR 9 FOR FULL TEXT)
RetroChron: LAN backup for mission-critical data. (Hardware Review) (local
area network) (evaluation)
DeBrine, Karl
MIS Week, v11, n25, p20(2)
June 18, 1990
DOCUMENT TYPE: evaluation ISSN: 0199-8838 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1110 LINE COUNT: 00089

ABSTRACT: RetroChron, from Vortex Systems Inc, is a file server-based mass-
storage control system for local area networks. Two
configurations are available: one version designed for systems based on the
80386 microprocessor (NetWare 386 network operating systems) is \$5,995;
another version designed for systems based on the 80286 microprocessor
(NetWare and DOS-based network operating systems) is \$4,995. RetroChron
features an Industry Standard Architecture (ISA) 16-bit, 80186 CPU with
1Mbyte DRAM; three independent SCSI ports, real-time clock, and support for
up to seven drives from each SCSI port. Automatic substitution of a back-up
disk is supplied in case of the failure of a primary disk. RetroChron
provides on-line archiving, complete audit trail and fault tolerance.
Documentation is sometimes vague. The 16-bit controller may become a
bottleneck in high performance servers.

29/3,AB/18 (Item 1 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2004 CMP Media, LLC. All rts. reserv.

01248549 CMP ACCESSION NUMBER: IWK20020211S0033
Tower Of Power - IT managers brace for the inevitable: petabyte-size
databases
Rick Whiting
INFORMATIONWEEK, 2002, n 875, PG40
PUBLICATION DATE: 020211
JOURNAL CODE: IWK LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: Data Management
WORD COUNT: 2769
TEXT:

A petabyte of data is difficult to fathom. Think of it as the
equivalent of 250 billion pages of text, enough to fill 20 million
four-drawer filing cabinets. Or imagine a 2,000-mile-high tower of 1

billion diskettes. Whatever you do, don't stop there-because it's the amount of data many businesses will be managing within the next five years.

29/3,AB/19 (Item 1 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
(c) 2004 IDG Communications. All rts. reserv.

035442
What a difference a year makes
LAN Backup Systems Buyer's Guide
Vendors have come a long way, but they're not there yet.
Byline: Paul Penrod
Journal: Network World Page Number: 45
Publication Date: February 14, 1994
Word Count: 4051 Line Count: 359

29/3,AB/20 (Item 1 from file: 696)
DIALOG(R)File 696:DIALOG Telecom. Newsletters
(c) 2004 The Dialog Corp. All rts. reserv.

00587444
INDUSTRY BRIEFS

OPTICAL MEMORY NEWS
January 27, 1998 VOL: DOCUMENT TYPE: NEWSLETTER
PUBLISHER: PHILLIPS BUSINESS INFORMATION
LANGUAGE: ENGLISH WORD COUNT: 484 RECORD TYPE: FULLTEXT

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31/3,AB/1 (Item 1 from file: 275)
DIALOG(R) File 275:Gale Group Computer DB(TM)
(c) 2004 The Gale Group. All rts. reserv.

02300135 SUPPLIER NUMBER: 54726037 (USE FORMAT 7 OR 9 FOR FULL TEXT)
storage.(data storage trends)(Industry Trend or Event)
Neema, Farid; Waid, Dennis
UNIX Review's Performance Computing, 17, 7, 21
June 15, 1999
LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 3884 LINE COUNT: 00335

ABSTRACT: The turmoil in the network storage industry makes forecasting difficult. Many organizations are turning to their databases as a foundation for becoming information-driven companies. These companies will base their business processes on access to reliable information concerning customers, markets, products, technologies and their competitors. Data access and management are key issues in moving mission-critical applications to distributed networks. The renewed emphasis on data storage and access is driving demand for increased storage capacity. Declines in magnetic disk storage have also helped to increase demand. New technologies, including data mining, e-commerce, videoconferencing and multimedia, are also stimulating demand for increased storage space.

SYSTEM:OS - DIALOG OneSearch

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- File 144:Pascal 1973-2004/Aug W5
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(c) 2004 DECHEMA
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- *File 350: For more current information, include File 331 in your search. Enter HELP NEWS 331 for details.
- File 347:JAPIO Nov 1976-2004/May(Updated 040903)
(c) 2004 JPO & JAPIO
- *File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.
- File 344:Chinese Patents Abs Aug 1985-2004/May
(c) 2004 European Patent Office
- File 371:French Patents 1961-2002/BOPI 200209
(c) 2002 INPI. All rts. reserv.
- *File 371: This file is not currently updating. The last update is 200209.

09/09/2004

10/569,891

Set	Items	Description
S1	1277	AU=(KAISER, S? OR KAISER S?)
S2	0	S1 AND (DATA OR DATUM) () (STORAG? OR STORE?? OR STORING) () (-MANAG? OR MEDIA OR MEDIUM)
S3	5	S1 AND ((DATA OR DATUM) () (STORAG? OR STORE?? OR STORING) OR DATABASE?? OR DATA()BASE??)
S4	5	RD (unique items)
S5	0	S1 AND ((STORAG? OR STORE?? OR STORING? OR MEMOR?) (3N) (INVENTORY??? OR INVENTORIES OR AVAILABIL? OR AVAILABL?) (1N)RISK?-??)
S6	0	S1 AND POOLED(1N) (STORAG? OR STORE?? OR STORING OR MEMOR?)
S7	1	S1 AND (STORAG? OR STORE?? OR STORING OR MEMOR?) (3N) (REQUIREMENT? ? OR SYSTEM? ?)
S8	1	S7 NOT S3

4/3,AB/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

04056738 INSPEC Abstract Number: B9202-8150-019, C9202-7410H-140
Title: System concept for recording disturbance event sequences on high voltage conductors

Author(s): **Kaiser, S.**; Markusch, D.; Neugebauer, G.
Journal: Elektrische vol.45, no.10 p.387-9
Publication Date: 1991 Country of Publication: West Germany
CODEN: EKTRAO ISSN: 0013-5399
Language: German

Abstract: Reliability of supply is an important requirement of high voltage power supply systems, and this necessitates rapid diagnosis of disturbance states followed by appropriate reaction to ensure economic damage limitation. The authors describe a system concept for recording the time sequence of fault conditions for subsequent analysis, together with a simulated sequence example. Hardware structure comprises slave computers for field data gathering, coupled to a central master computer for data processing and communication. Data organisation where RAM disks are used for storage of disturbance data, and software aspects including menu selection and other modes, are described. An application of the concept is illustrated.

Subfile: B C

4/3,AB/2 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.

13048401 Genuine Article#: BAN50 Number of References: 15
Title: III/V nitride LEDs and lasers (ABSTRACT AVAILABLE)
Author(s): Hahn B (REPRINT) ; Eisert D; Baur J; Fehrer M; **Kaiser S**;
Lugauer HJ; Strauss U; Lell A; Harle V
Corporate Source: Osram Opto Semicond,Regensburg//Germany/ (REPRINT); Osram
Opto Semicond,Regensburg//Germany/
, 2003, V174, P315-322
ISSN: 0951-3248 Publication date: 20030000
Publisher: IOP PUBLISHING LTD, DIRAC HOUSE, TEMPLE BACK, BRISTOL BS1 6BE,
ENGLANDCOMPOUND SEMICONDUCTORS 2002
Series: INSTITUTE OF PHYSICS CONFERENCE SERIES
Language: English Document Type: ARTICLE

Abstract: On the recent LED designs three different main paths can be observed. First, low cost, shrunk devices operating at low voltage are focus of mobilecom application, second, high brightness devices driven at 20mA are targeted for mass markets such as the automotive market and third, high optical power devices for high flux outdoor light sources and general lighting are in the technological focus. All of these devices focus on high quantum and high extraction efficiencies leading to overall efficiencies as high as 2530 lm/W and absolute light output as high as 30 lm of white light per single device. To reach such numbers new technologies on light generation and extraction have been developed. Another main path of research is focused on laser devices where applications as high optical **data storage** density, high resolution printing, spectroscopy & sensing, projection & display technology as well as general lighting are targeted. The laser research of today aims on especially long lifetime at elevated temperatures which is still the limiting factor to start mass market applications. Most likely these markets will develop in the next years, e.g. 2004 is addressed for "Blu-ray" DVD applications.

4/3,AB/3 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.

12340763 Genuine Article#: 754PW Number of References: 33
Title: Evaluation of common gene expression patterns in the rat nervous system (ABSTRACT AVAILABLE)
Author(s): **Kaiser S**; Nisenbaum LK (REPRINT)
Corporate Source: Eli Lilly & Co,Lilly Res Labs, Neurosci Discovery Res,Indianapolis//IN/46285 (REPRINT); Eli Lilly & Co,Lilly Res Labs, Neurosci Discovery Res,Indianapolis//IN/46285
Journal: PHYSIOLOGICAL GENOMICS, 2003, V16, N1 (DEC 16), P1-7
ISSN: 1094-8341 Publication date: 20031216
Publisher: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA

Language: English Document Type: ARTICLE

Abstract: In the postgenomic era, integrating data obtained from array technologies (e. g., oligonucleotide microarrays) with published information on eukaryotic genomes is beginning to yield biomarkers and therapeutic targets that are key for the diagnosis and treatment of disease. Nevertheless, identifying and validating these drug targets has not been a trivial task. Although a plethora of bioinformatics tools and **databases** are available, major bottlenecks for this approach reside in the interpretation of vast amounts of data, its integration into biologically representative models, and ultimately the identification of pathophysiologically and therapeutically useful information. In the field of neuroscience, accomplishing these goals has been particularly challenging because of the complex nature of nerve tissue, the relatively small adaptive nature of induced- gene expression changes, as well as the polygenic etiology of most neuropsychiatric diseases. This report combines published data sets from multiple transcript profiling studies that used GeneChip microarrays to illustrate a postanalysis approach for the interpretation of data from neuroscience microarray studies. By defining common gene expression patterns triggered by diverse events (administration of psychoactive drugs and trauma) in different nerve tissues (telencephalic brain areas and spinal cord), we broaden the conclusions derived from each of the original studies. In addition, the evaluation of the identified overlapping gene lists provides a foundation for generating hypotheses relating alterations in specific sets of genes to common physiological processes. Our approach demonstrates the significance of interpreting transcript profiling data within the context of common pathways and mechanisms rather than specific to a given tissue or stimulus. We also highlight the use of gene expression patterns in predictive biology (e. g., in toxicogenomics) as well as the utility of combining data derived from multiple microarray studies that examine diverse biological events for a broader interpretation of data from a particular microarray study.

4/3,AB/4 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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02588887 JICST ACCESSION NUMBER: 95A0978497 FILE SEGMENT: JICST-E
Phonetic data for a Kanji Instruction **Database** for learners from non-kanji backgrounds. Phonetic compounds and rhyming.
KAISER S (1)

(1) Univ. of Tsukuba
Joho Shori Gakkai Kenkyu Hokoku, 1995, VOL.95,NO.91(CH-27), PAGE.13-20,
FIG.1, TBL.3, REF.9

JOURNAL NUMBER: Z0031BAO ISSN NO: 0919-6072
UNIVERSAL DECIMAL CLASSIFICATION: 002.5:025
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

ABSTRACT: International students from non-kanji backgrounds almost without exception come from cultures where alphabet-type writing systems are used, and therefore tend to view writing as a system that matches the sounds of a language. Furthermore, they need to learn a fairly large number of kanji in a relatively short time. For both these reasons, the most systematic aspect of kanji, the arrangement of phonetic indicators, deserves more attention in the teaching of kanji. Furthermore, unlike Japanese, both Chinese and English(as well as a large number of other languages) make use of rhyme in various ways. In this paper, I first show that alphabet-type writing systems are used more widely than usually thought, and look at the nature of the phoneticity of kanji. I then proceed to a comparison of rhyme in Chinese and English, which shows a number of similarities, and discuss the results of a pilot questionnaire on learners understanding of rhyming sets, with a view of utilizing it for the systematic acquisition of phonetic indicators.
(author abst.)

4/3,AB/5 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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02238399 JICST ACCESSION NUMBER: 95A0059303 FILE SEGMENT: JICST-E
On the design of a kanji learning **database** (1).

KAISER S (1)

(1) Ibarakidai Ryugakuseise
Joho Shori Gakkai Kenkyu Hokoku, 1994, VOL.94,NO.101(CH-24), PAGE.47-52,
FIG.2, REF.27

JOURNAL NUMBER: Z0031BAO ISSN NO: 0919-6072
UNIVERSAL DECIMAL CLASSIFICATION: 681.3.02:37
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

ABSTRACT: A variety of approaches has been proposed for the learning and teaching of kanji, all of which are essentially experiential rather than based on experimental data. Some of the more common of these approaches can be labelled as centering on the following characteristics: picture/pattern-based, meaning-based, meaning/graphics-based, situation-based, mnemonic/story-based, shape-relational, based on accurate etymology, phonological compound based. The major features of existing computer kanji software, on the other hand, include the following: 1. Learned kanji can be checked/practised through exercises 2. The stroke order of unknown kanji can be checked through animation 3. The pronunciation of unknown kanji can be checked through digitized voice 4. Examples of kanji use/compounds can be seen 5. Learners can write additional information on a pad Basically, such software functions to cement already learned kanji in the memory and get additional information on their use, or find information, such as stroke order and pronunciation, on new kanji. It does not however assist the learner in the actual learning process of the shape of a new kanji, and does by and large not go beyond

the capabilities of pen and paper. The present paper is the first in a series with a view to establishing the methodology of kanji learning through data on the learning process through a multimedia **database** where the learner can choose his preferred way of learning a new kanji. As a first step the design and contents of the learning **database(s)** are examined as a basis for creating a prototype. (author abst.)